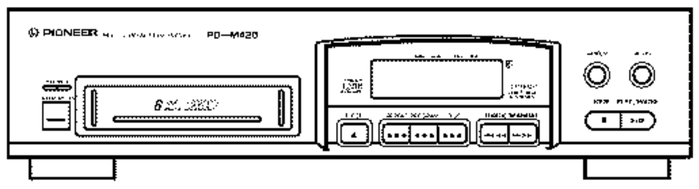
Service Manual

PIONEER®
The Art of Entertainment



ORDER NO.
RRV1868

MULTI COMPACT DISC PLAYER

PD-M426

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	The voltage can be converted by the following method.
	PD-M426		
KUXJ/2	○	AC120V	————
KCXJ/2	○	AC120V	————
WYXJ/2	○	AC220–240V	————
WPWXJ/2	○	AC220–240V	————
RDXJ/2	○	AC110–127V/220–240V	With the voltage selector

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PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE, INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER ELECTRONIC (EUROPE) N.V . Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 501 Orchard Road, #10-00 Lane Crawford Place, Singapore 0923

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).
When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

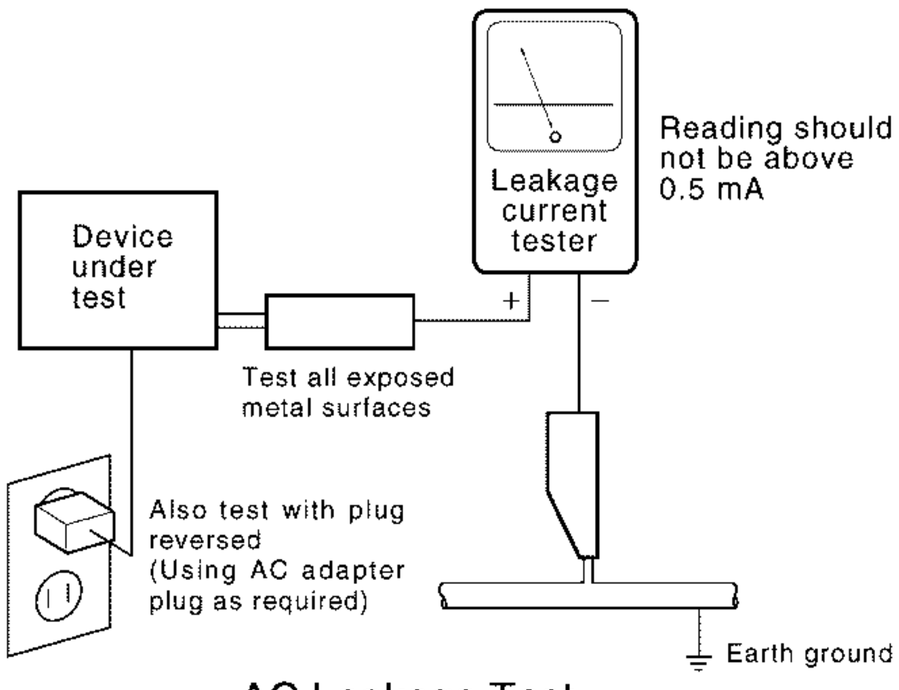
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage , etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

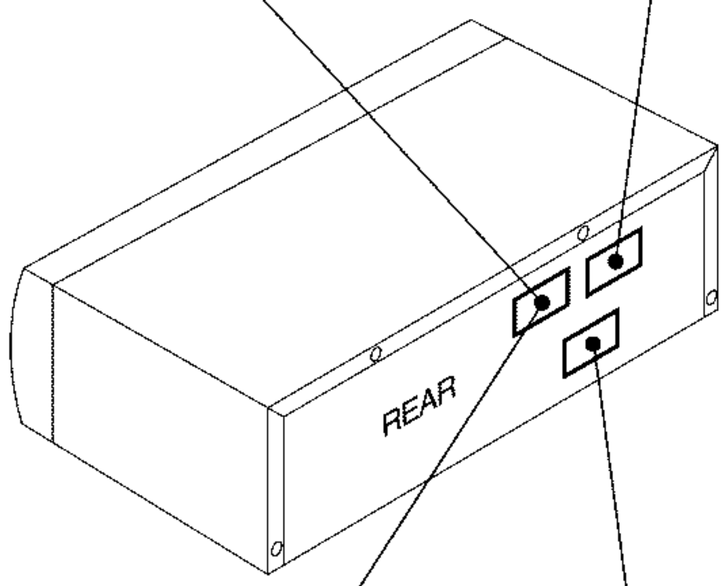
LABEL CHECK

WYXJ/2 type

ADVARSEL
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHED SAFBRYDERE ER UDE AF FUNKTION.
UNDGÅ UDSÆTTELSE FOR STRÅLING.
VORSICHT!
UNSICHTBARE LASER-STRAHLUNG TRITT AUS, WENN DECKEL (ODER KLAPPE) GEÖFFNET IST! NICHT DEM STRAHL AUSSETZEN!
VRW1094

WYXJ/2 type only

VARO!
Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.
VARNING!
Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.
PRW1233



CAUTION
INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO BEAM
PRW1018

WPWXJ/2 type

CLASS 1
LASER PRODUCT
VRW-328

WPWXJ/2 type only

Additional Laser Caution

1. Laser Interlock Mechanism
   The ON/OFF (ON: low level, OFF: high level) status of S601 (LPS1) and S602 (LPS2) switches for detecting the loading state is detected by the system microprocessor, and the design prevents laser diode oscillation except when both switches S601 and S602 are ON (low level or clamped state).
   Thus, interlock will no longer function if switches S601 (LPS1) and S602 (LPS2) are deliberatery shorted (low level). The interlock also does not function in the test mode*.

   Laser diode oscillation will continue, if pin 33 of CXA1782CQ (IC151) on the MOTHER BOARD ASSY is connected to GND, or pin 50 of IC351 (LDON) is connected to low level (ON), or else the terminals of Q151 are shorted to each other (fault condition).

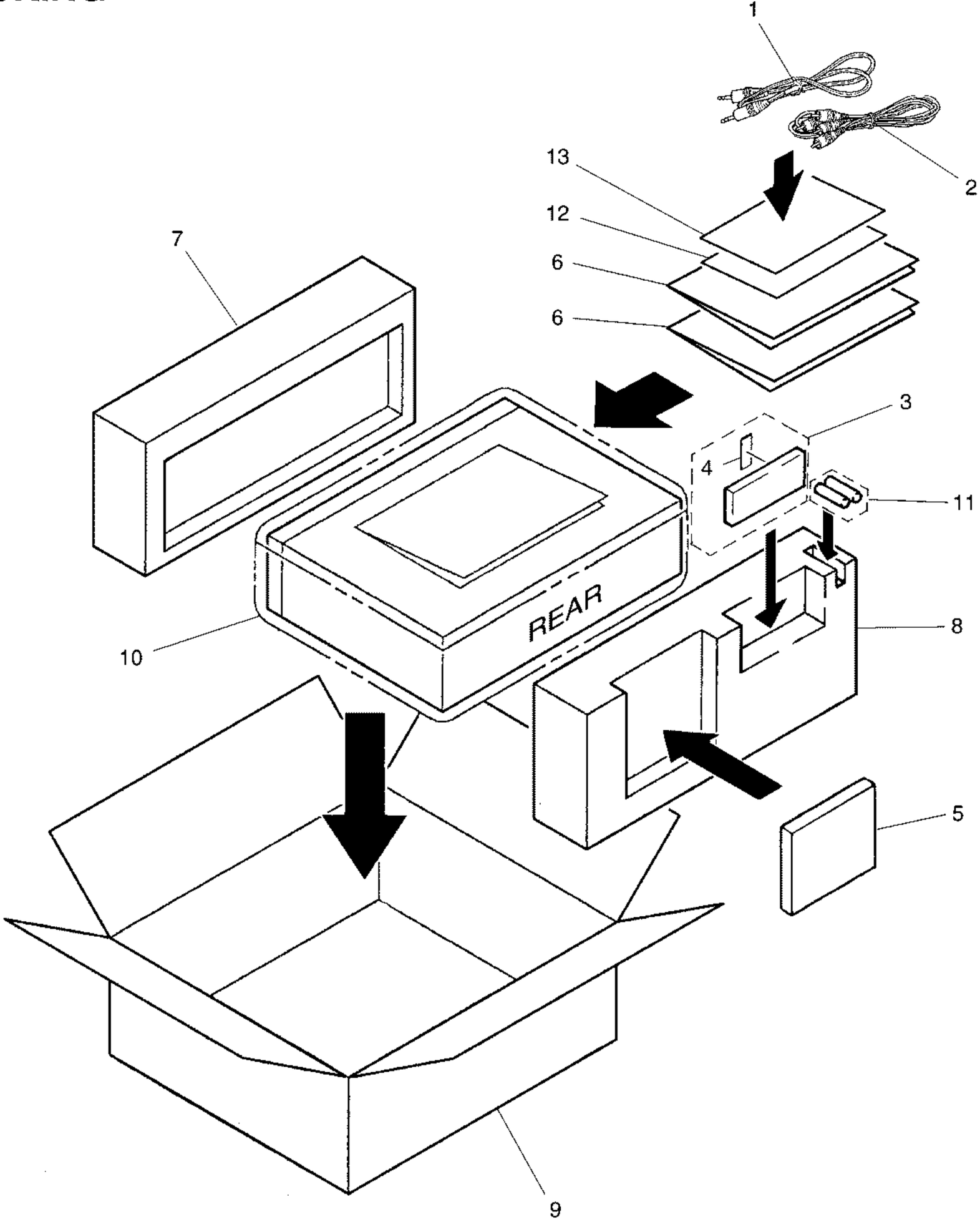
2. When the cover is opened with the servo mechanism block removed to be turned over, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

* Refer to page 22.

2. EXPLODED VIEWS AND PARTS LIST

NOTES :
- *Parts marked by "* NSP *" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Screw adjacent to ▼ mark on the product are used for disassembly.*

2.1 PACKING



(1) PACKING PARTS LIST

Mark	No.	Description	Parts No.
	1	Control Cable (for SR) (L=1 m)	See Contrast table (2)
	2	Output Cable (L=1 m) (for AUDIO)	PDE1248
	3	Remote Control Unit (CU-PD068)	PWW1107
	4	Battery Cover	PZN1010
	5	6-Compact Disc Magazine	PXA1575
	6	Operating Instructions	See Contrast table (2)
	7	Styrol Protector (F)	PHA1276
	8	Styrol Protector (R)	PHA1277
	9	CD Packing Case	See Contrast table (2)
	10	Mirror Mat Sheet	Z23–007
NSP	11	Dry Cell Battery (AAA/R03)	VEM–022
NSP	12	Warranty Card	See Contrast table (2)
	13	Caution 220V Label	See Contrast table (2)

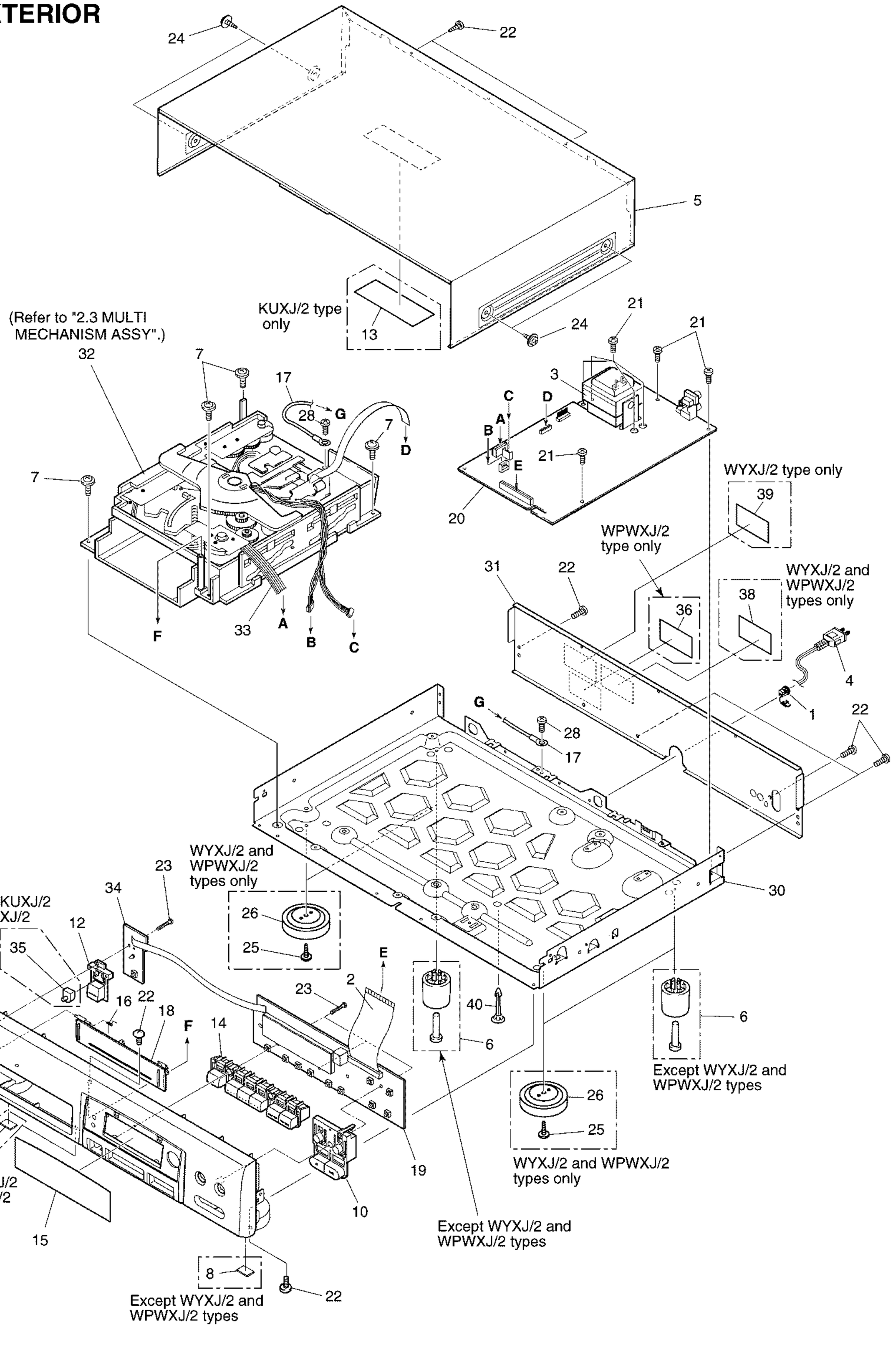
(2) CONTRAST TABLE

PD-M426/KUXJ/2, KCXJ/2, WYXJ/2, WPWXJ/2 and RDXJ/2 are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.					Remarks
			KUXJ/2	KCXJ/2	WYXJ/2	WPWXJ/2	RDXJ/2	
	1	Control Cable (for SR) (L=1 m)	PDE1247	PDE1247	Not used	Not used	PDE1247	
	6	Operating Instructions (English)	PRB1255	Not used	Not used	PRB1255	Not used	
	6	Operating Instructions (English/French)	Not used	PRE1257	PRE1257	Not used	Not used	
	6	Operating Instructions (German/Italian/Dutch/Swedish/ Spanish/Portuguese)	Not used	Not used	RRD1018	Not used	Not used	
	6	Operating Instructions (English/Spanish/Chinese)	Not used	Not used	Not used	Not used	PRE1255	
	9	CD Packing Case	PHG2287	PHG2289	PHG2309	PHG2243	PHG2243	
NSP	12	Warranty Card	ARY1051	ARY1075	ARY7009	PRY1003	Not used	
	13	Caution 220V Label	Not used	Not used	Not used	Not used	ARR1003	

PD-M426

2.2 EXTERIOR



(1) EXTERIOR PARTS LIST

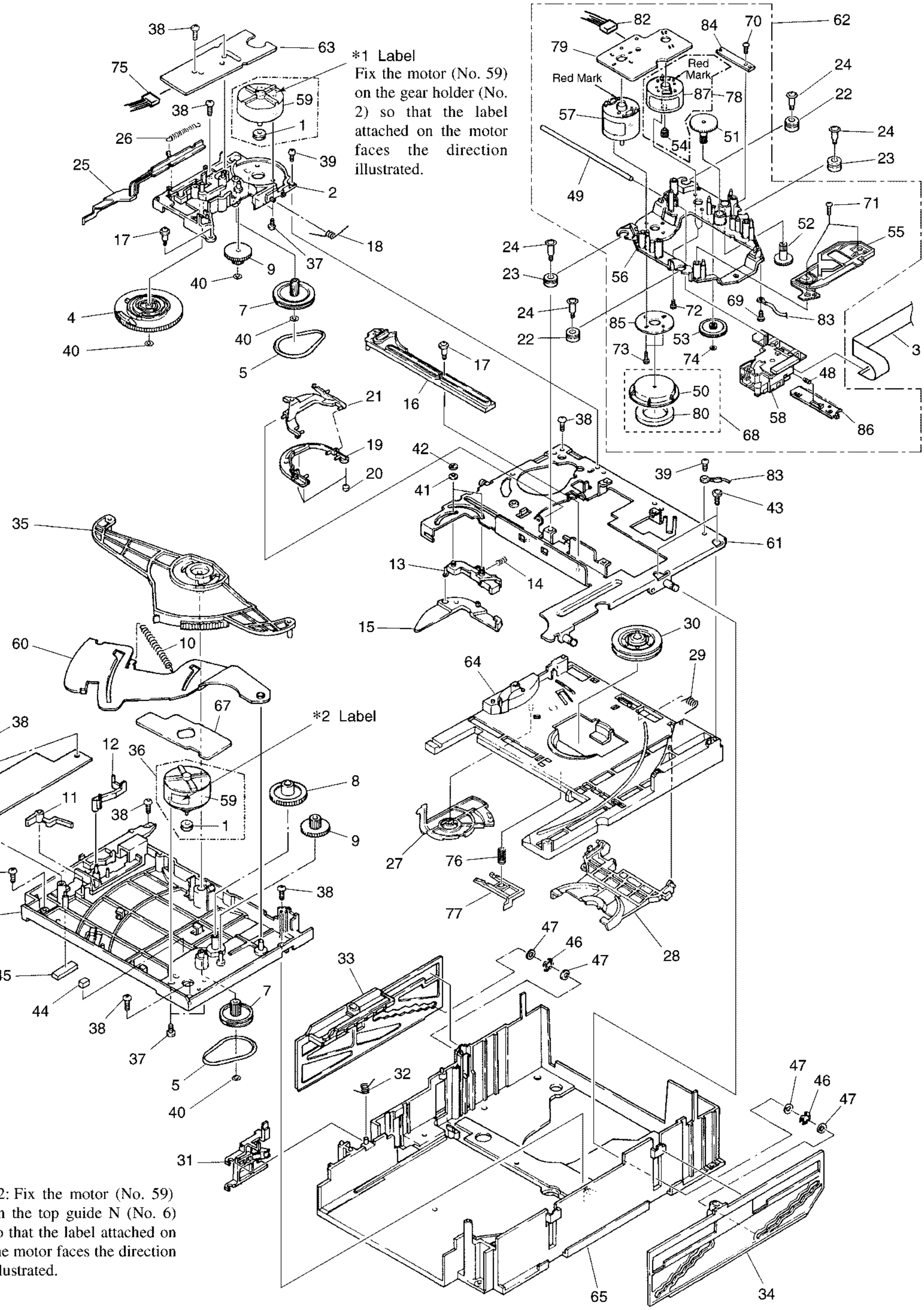
Mark	No.	Description	Parts No.
⚠	1	Strain Relief	See Contrast table (2)
	2	32P F.F.C/30V	PDD1041
⚠	3	Power Transformer	See Contrast table (2)
⚠	4	AC Power Cord	See Contrast table (2)
	5	Bonnet	PYY1149
	6	Foot Assy	See Contrast table (2)
	7	Screw	IBZ30P080FCC
	8	Rubber Sheet	See Contrast table (2)
	9	Function Panel	See Contrast table (2)
	10	Play Button	PAC1766
	11	Name Plate	PAM1608
	12	Power Button	PAC1719
	13	65 Label	See Contrast table (2)
	14	Track Button	PAC1765
	15	Display Window	See Contrast table (2)
	16	Spring (Door)	PBH1022
NSP	17	Earth Lead Unit	DE007VF0
	18	Door	PNW2598
	19	FUNCTION BOARD Assy	PWZ2769
⚠	20	MOTHER BOARD Assy	See Contrast table (2)
	21	Screw	BBZ30P060FMC
	22	Screw	BBZ30P080FZK
	23	Screw	PPZ30P120FMC
	24	Screw	FBT40P080FZK
	25	Screw	IBZ30P100FCC
	26	Insulator	See Contrast table (2)
	27	.....	
	28	Screw	PDZ30P050FMC
	29	.....	
NSP	30	Under Base	PNA1751
	31	Rear Base	See Contrast table (2)
NSP	32	Multi Mechanism Assy	PXA1592
	33	Flat Cable (6P)	D20PYY0615E
NSP	34	SW BOARD Assy	See Contrast table (2)
	35	LED Lens	See Contrast table (2)
NSP	36	Caution Label (F)	See Contrast table (2)
	37	.....	
	38	Caution Label	See Contrast table (2)
	39	Caution Label (HE)	See Contrast table (2)
NSP	40	Locking Card Spacer	PEC1036

(2) CONTRAST TABLE

PD-M426/KUXJ/2, KCXJ/2, WYXJ/2, WPWXJ/2 and RDXJ/2 are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.					Remarks
			KUXJ/2	KCXJ/2	WYXJ/2	WPWXJ/2	RDXJ/2	
⚠	1	Strain Relief	CM–22C	CM–22C	CM–22B	CM–22B	CM–22B	
⚠	3	Power Transformer	PTT1237	PTT1237	PTT1236	PTT1236	PTT1238	
⚠	4	AC Power Cord	PDG1015	PDG1015	PDG1003	ADG1123	PDG1013	
	6	Foot Assy	AEC1531	AEC1531	Not used	Not used	AEC1531	
	8	Rubber Sheet	AEB1111	AEB1111	Not used	Not used	AEB1111	
	9	Function Panel	PNW2725	PNW2725	PNW2726	PNW2726	PNW2727	
	13	65 Label	ORW1069	Not used	Not used	Not used	Not used	
	15	Display Window	PAM1731	PAM1731	PAM1671	PAM1635	PAM1731	
⚠	20	MOTHER BOARD Assy	PWM2154	PWM2154	PWM2156	PWM2156	PWM2155	
	26	Insulator	Not used	Not used	PNW1912	PNW1912	Not used	
	31	Rear Base	PNA2394	PNA2394	PNA2413	PNA2412	PNA2411	
NSP	34	SW BOARD Assy	PWZ2804	PWZ2804	PWZ2805	PWZ2805	PWZ2805	
	35	LED Lens	Not used	Not used	PNW2019	PNW2019	PNW2019	
NSP	36	Caution Label (F)	Not used	Not used	Not used	VRW–328	Not used	
	38	Caution Label	Not used	Not used	VRW1094	PRW1018	Not used	
	39	Caution Label (HE)	Not used	Not used	PRW1233	Not used	Not used	

2.3 MULTI MECHANISM ASSY



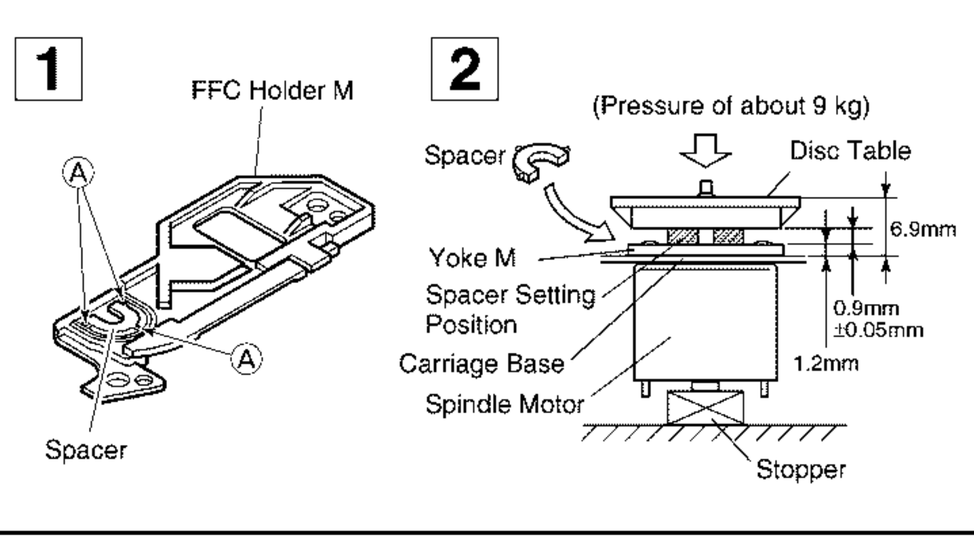
MULTI MECHANISM ASSY PARTS LIST

Mark	No.	Description	Parts No.
	1	Motor Pulley	PNW1634
	2	Gear Holder	PNW1929
	3	PU PWB (POLYIMDE)	PNP1442
	4	Cam Gear	PNW1923
	5	Belt	PEB1138
	6	Top Guide N	PNW2441
	7	Gear Pulley	PNW1918
	8	Gear S	PNW1919
	9	Gear L	PNW1920
	10	Eject Spring	PBH1107
	11	SW Lever	PNW1927
	12	Seven Bar	PNW1931
	13	Sub Revolving Lever	PNW1933
	14	Sub Revolving Lever Spring	PBH1111
	15	Revolving Lever	PNW1932
	16	Drive Plate	PNW1930
	17	Motor Screw	PBA–112
	18	Holder Lever Spring	PBH1110
	19	Disc Holder	PNW1924
	20	Cushion A	PED1001
	21	Holder Lever	PNW1925
	22	Float Rubber	PEB1014
	23	Float Rubber	PEB1132
	24	Float Screw	PBA1073
	25	Release Lever	PNW1934
	26	Release Spring	PBH1106
	27	Clamper Cam	PNW1922
	28	Clamper Holder	PNW1921
	29	Centering Spring	PBH1109
	30	Clamper	PNW2777
	31	Lock Lever	PNW1917
	32	Lock Spring	PBH1108
	33	Stair NL	PNW2443
	34	Stair NR	PNW2444
	35	Synchronize Lever	PNW1926
	36	Motor Assy (LOADING, DISC SELECT)	PEA1130
	37	Screw	PMZ26P040FMC
	38	Screw	PPZ30P080FMC
	39	Screw	BBZ30P060FMC
	40	Washer	WT26D047D025
	41	Washer	WA31D054D025
	42	E Ring	Z39–010
	43	Screw	IPZ30P080FMC
	44	Spacer (Rubber)	PEB1238
	45	Spacer (Rubber)	PEB1179
	46	Silent Ring	PBK1093
	47	Washer	WA62D130D025
	48	Rack Spring	PBH1128
	49	Guide Bar	PLA1094
	50	Disc Table	PNW1067
	51	Gear 1	PNW2052
	52	Gear 2	PNW2053
	53	Gear 3	PNW2054
	54	Pinion Gear	PNW2055
	55	FFC Holder M	PNW2746
	56	Carriage Base	PNW2699
	57	D.C. Motor Assy (Spindle with oil)	PEA1235
	58	Pickup Assy	PEA1335
	59	Carriage Motor	VXM1033
	60	Eject Lever	PNB1306
	61	Upper Chassis	PNB1267
NSP	62	Servo Mechanism Assy M	PXA1595
NSP	63	LOADING BOARD Assy	PWZ2038
	64	Sub Chassis N	PNW2440
	65	Main Chassis	PNW2074
NSP	66	SELECT BOARD Assy	PWZ2533
NSP	67	MOTOR BOARD Assy	PWZ2040
	68	Disc Table Assy	PEA1035
	69	Screw	BBZ26P060FMC
	70	Screw	BPZ20P060FMC
	71	Screw	BPZ26P100FMC
	72	Screw	JFZ17P025FZK
	73	Screw	JFZ20P040FMC
	74	Washer	WT12D032D025
	75	Connector Assy	PDE1241
	76	Stopper Spring	PBH1131
	77	Stopper	PNW2069
	78	D.C. Motor Assy (CARRIAGE)	PEA1246
NSP	79	MECHANISM BOARD Assy	PWX1192
	80	Clamp Magnet	PMF1014
	81	.....	
	82	Connector Assy	PDE1240
NSP	83	Earth Lead Unit	PDF1118
	84	Gear Stopper	PNB1303
	85	Yoke M	PNB1312
	86	Rack Holder	PNW2056
	87	Carriage DC Motor	PXM1027

● How to Install the Disc Table

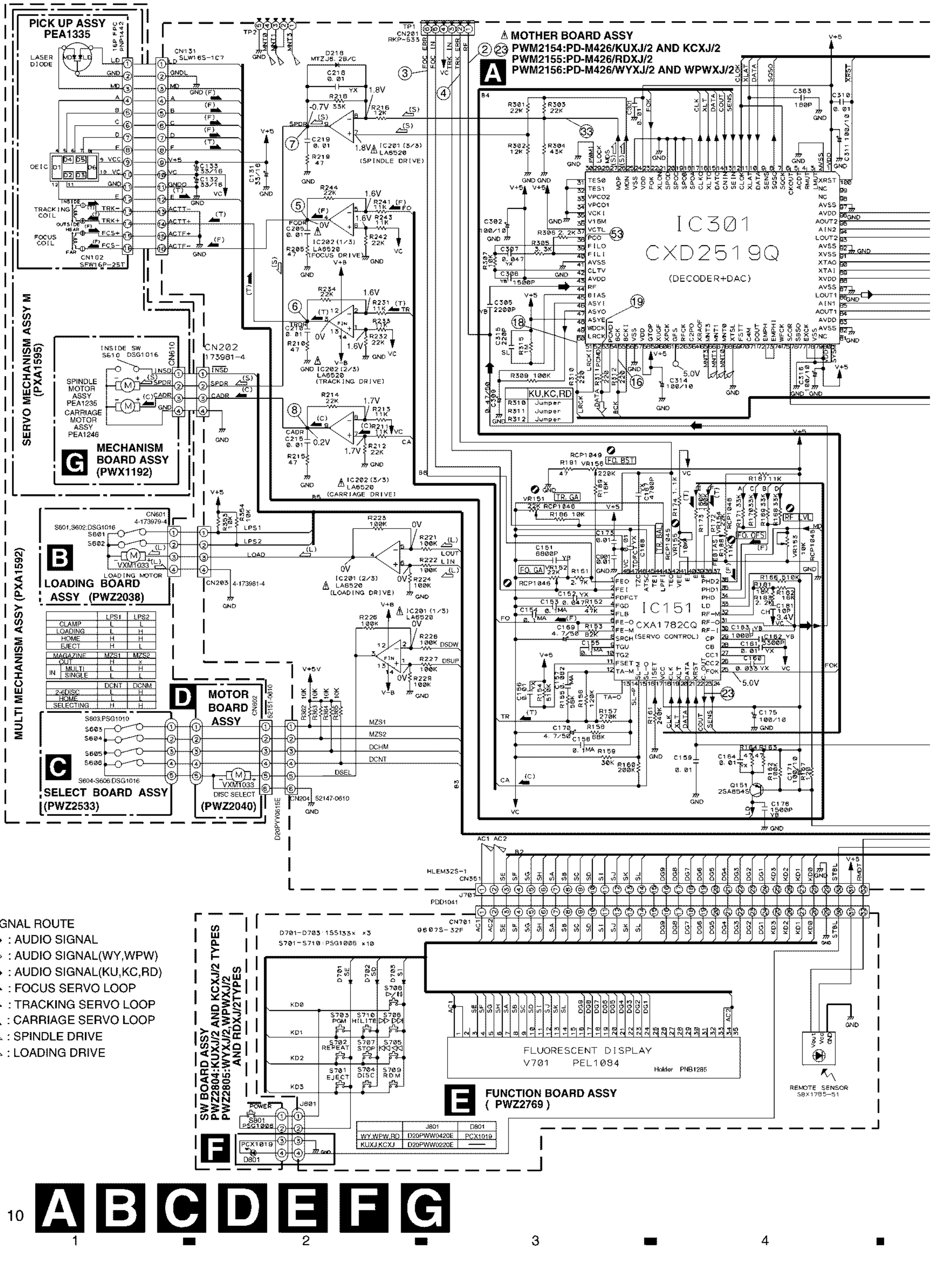
1 Use nipper or other tool to cut the three sections marked Ⓐ in figure 1. Then remove the spacer

2 While supporting the spindle motor shaft with the stopper, put spacer on top of the yoke M, and stick the disc table on top (takes about 9kg pressure). Detach the spacer.



3. SCHEMATIC DIAGRAM

Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".

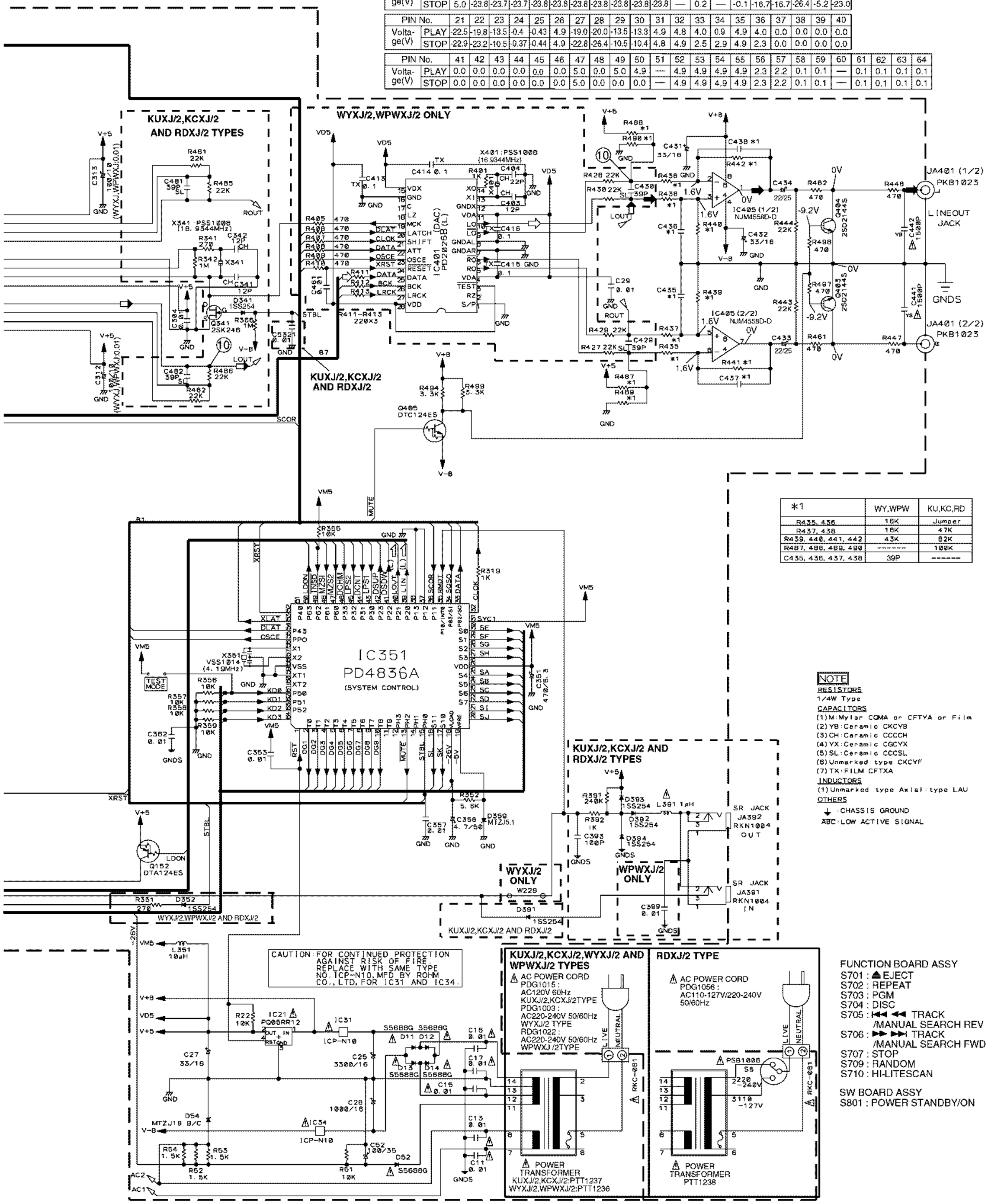


IC351(PD4836A) PLAY:1DISC PLAY.

PIN No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Voltage(V)	PLAY	5.0	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	—	4.9	—	-0.1	-16.8	-17.0	-25.9	-5.2	-22.2
	STOP	5.0	-23.8	-23.7	-23.7	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	—	0.2	—	-0.1	-16.7	-16.7	-26.4	-5.2	-23.0

PIN No.		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Voltage(V)	PLAY	-22.5	-19.8	-13.5	-0.4	-0.43	4.9	-19.0	-20.0	-13.5	-13.3	4.9	4.8	4.0	0.9	4.9	4.0	0.0	0.0	0.0	0.0
	STOP	-22.9	-23.2	-10.5	-0.37	-0.44	4.9	-22.8	-26.4	-10.5	-10.4	4.8	4.9	2.5	2.9	4.9	2.3	0.0	0.0	0.0	0.0

PIN No.		41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Voltage(V)	PLAY	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	5.0	4.9	—	4.9	4.9	4.9	4.9	2.3	2.2	0.1	0.1	—	0.1	0.1	0.1	0.1
	STOP	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	—	4.9	4.9	4.9	4.9	2.3	2.2	0.1	0.1	—	0.1	0.1	0.1	0.1



*1	WY,WPW	KU,KC,RD
R435, 436	16K	Jumper
R437, 438	16K	47K
R439, 440, 441, 442	43K	82K
R487, 488, 489, 490	--------	100K
C435, 436, 437, 438	39P	------

NOTE

RESISTORS
1/4W Type

CAPACITORS
(1) M : Mylar CQMA or CFTYA or Film
(2) YB : Ceramic CKCYB
(3) CH : Ceramic CCCCH
(4) VX : Ceramic CGCYX
(5) SL : Ceramic CCCSL
(6) Unmarked type CKCYF
(7) TX : FILM CFTXA

INDUCTORS
(1) Unmarked type Axial : type LAU

OTHERS
⏚ : CHASSIS GROUND
ABC : LOW ACTIVE SIGNAL

FUNCTION BOARD ASSY
S701 : ⏏ EJECT
S702 : REPEAT
S703 : PGM
S704 : DISC
S705 : ⏮ ◀◀ TRACK /MANUAL SEARCH REV
S706 : ▶▶ ⏭ TRACK /MANUAL SEARCH FWD
S707 : STOP
S709 : RANDOM
S710 : HI-LITESCAN

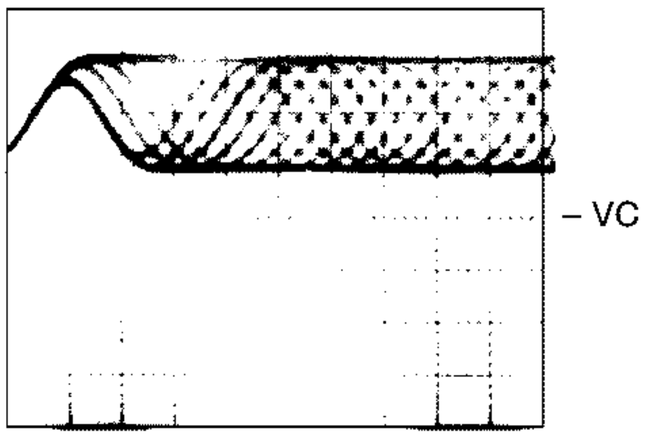
SW BOARD ASSY
S801 : POWER STANDBY/ON

Waveforms

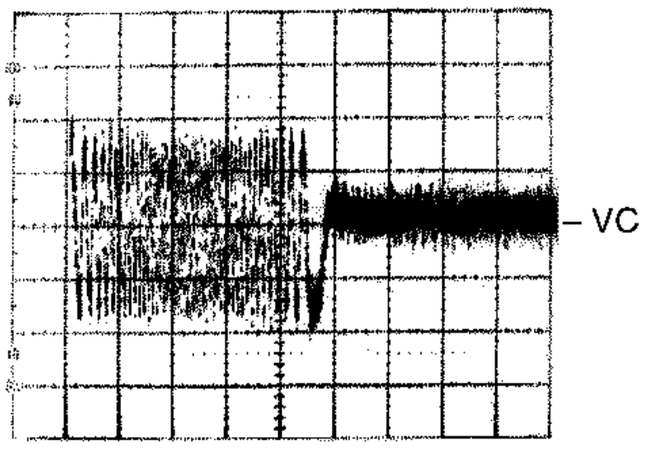
Note: The encircled numbers denote measuring point in the schematic diagram.

*1 50T-JUMP: After switching to the pause mode, press the manual search key.
*2 FOCUS-IN: Press the play key without loading a disc.

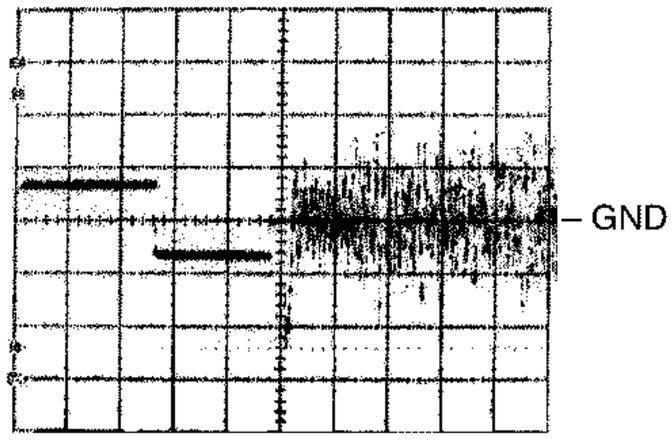
(2) TP1-Pin 1: PLAY MODE (RF)
500mV/div 500nsec/div



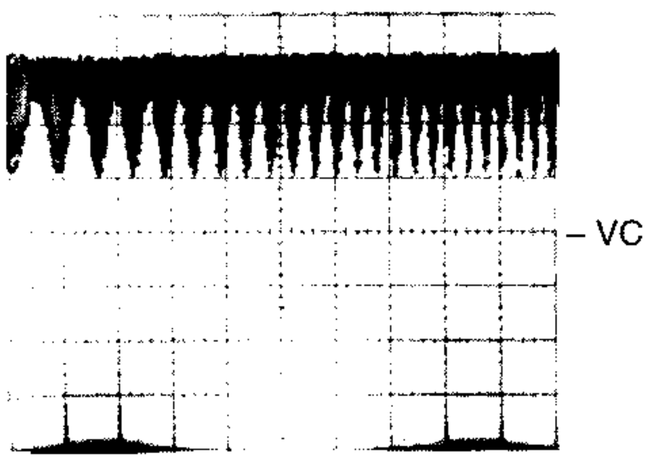
(4') TP1-Pin 2: 50T - JUMP (*1) MODE (TRER)
200mV/div 1msec/div



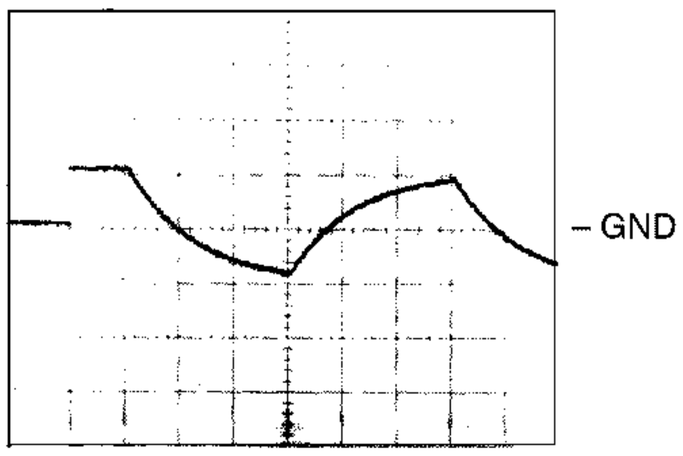
(6') IC202-Pin 3: 50T - JUMP (*1) MODE (TRDR)
500mV/div 1msec/div



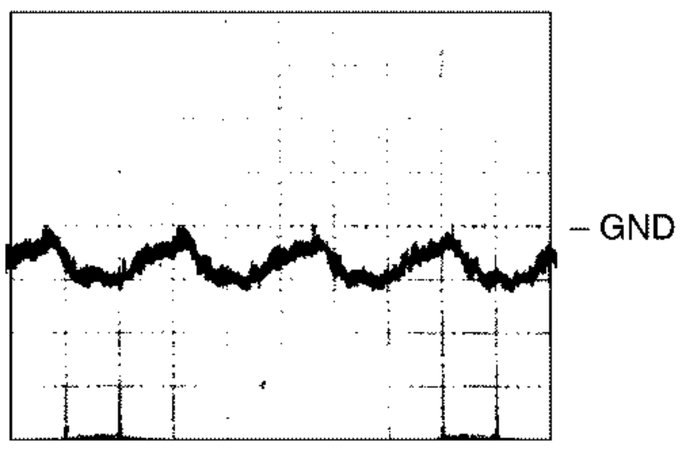
(2) TP1-Pin 1: TRACK SEARCH MODE (RF)
500 mV/div 200 µsec/div



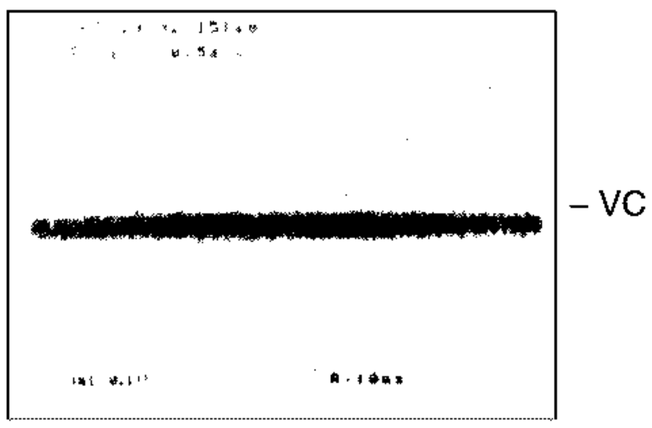
(5) IC202-Pin 4: FOCUS-IN (*2) MODE (FODR)
1V/div 200msec/div



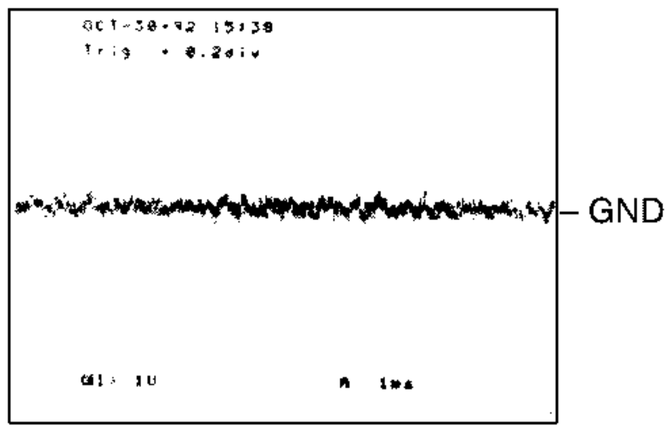
(7) IC201-Pin 9: PLAY MODE (SPDR)
1V/div 50msec/div



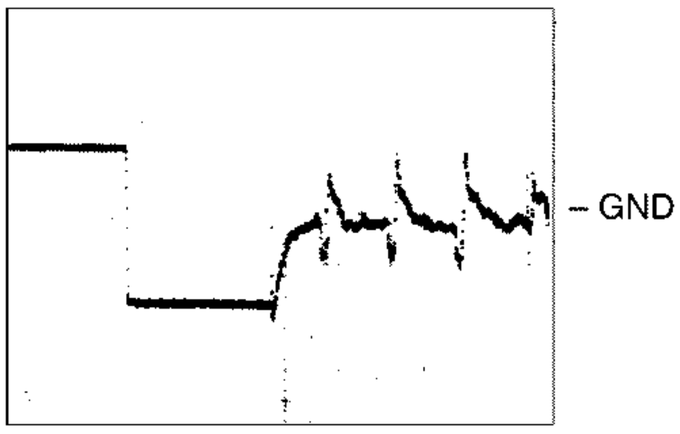
(3) TP1-Pin 6: PLAY MODE (FOER)
100mV/div 10msec/div



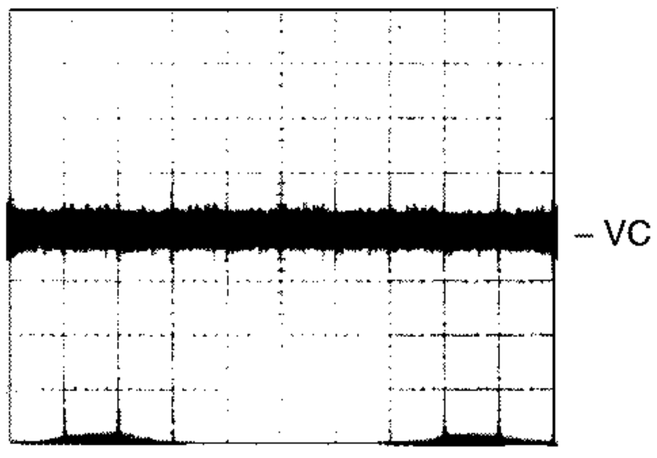
(5) IC202-Pin 4: PLAY MODE (FODR)
1V/div 1msec/div



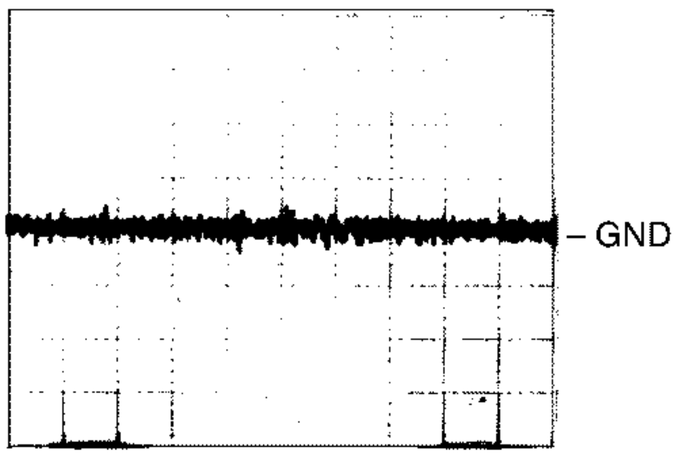
(7) IC201-Pin 9: TRACK SEARCH MODE (SPDR)
2V/div 50msec/div



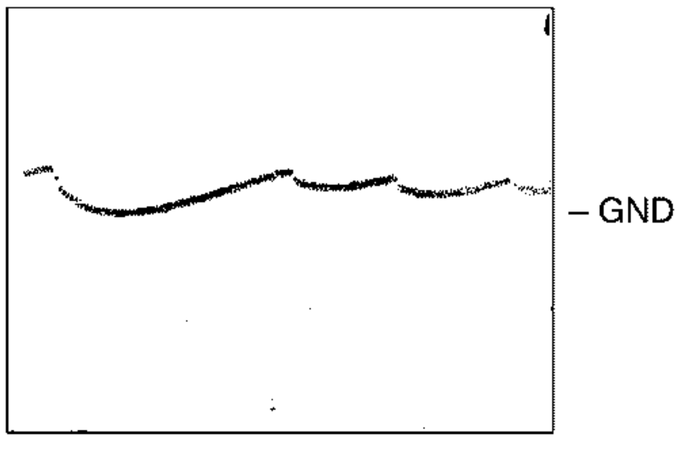
(4) TP1-Pin 2: PLAY MODE (TRER)
200mV/div 1msec/div



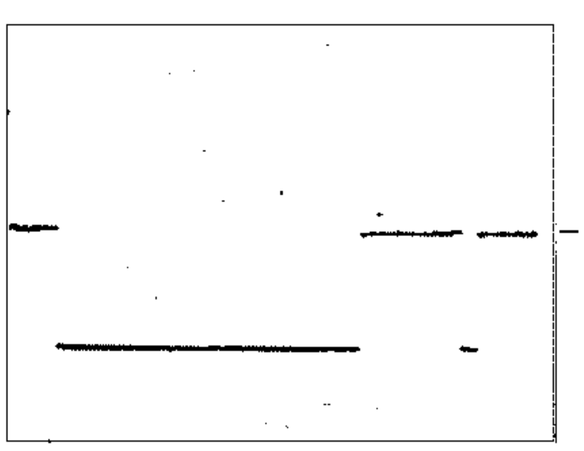
(6) IC202-Pin 3: PLAY MODE (TRDR)
500mV/div 1msec/div



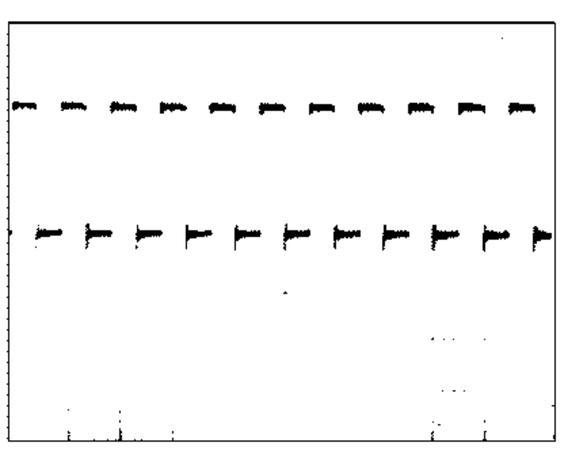
(8) IC202-Pin 9: PLAY MODE (CADR)
0.2V/div 2sec/div



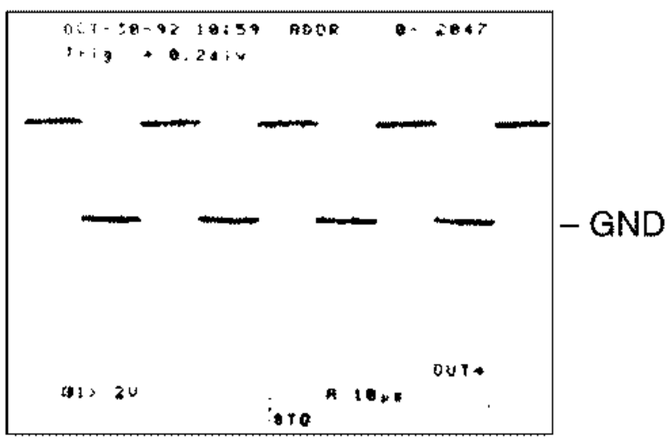
8 IC202-Pin 9: TRACK SEARCH MODE
(CADR)
2V/div 200msec/div



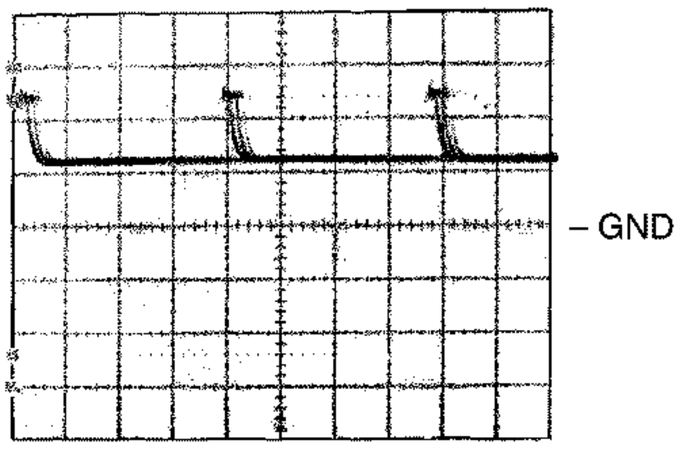
16 IC301-Pin 54 : PLAY MODE (1kHz)
(BCK)
2V/div 500nsec/div



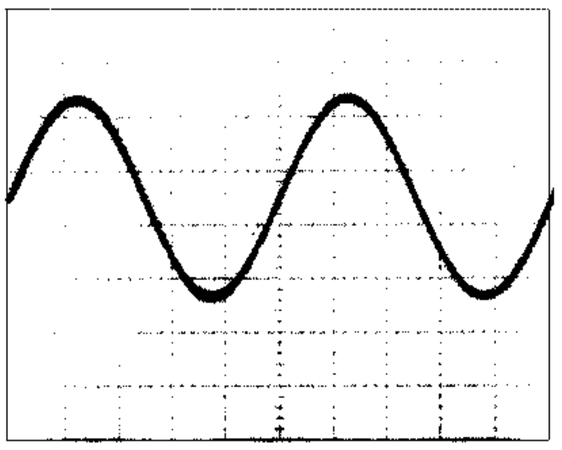
18 IC301-Pin 50 : PLAY MODE (1kHz)
(LRCK)
2V/div 10 µsec/div



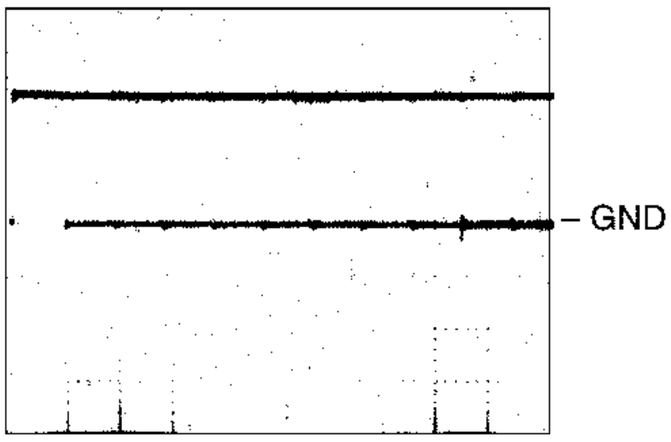
33 IC301-Pin 27 : PLAY MODE (MDP)
2V/div 2 µsec/div



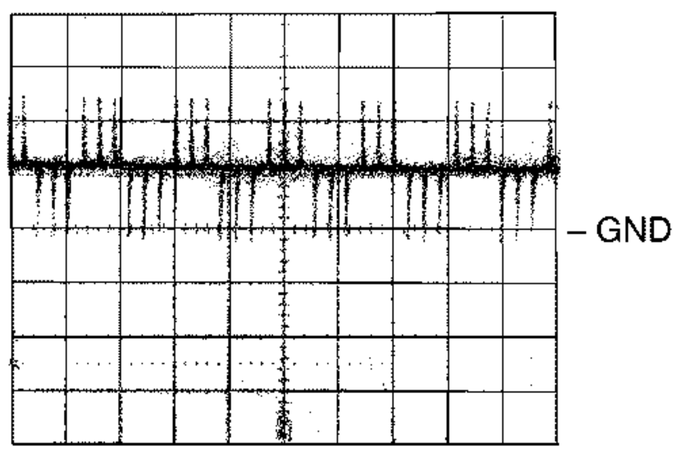
10 IC401-Pin 10 : PLAY MODE (1kHz)
(LO).....WY,WPW
IC301-Pin 86 : PLAY MODE (1kHz)
(LOUT 1).....KU,KC,RD
1V/div 200msec/div



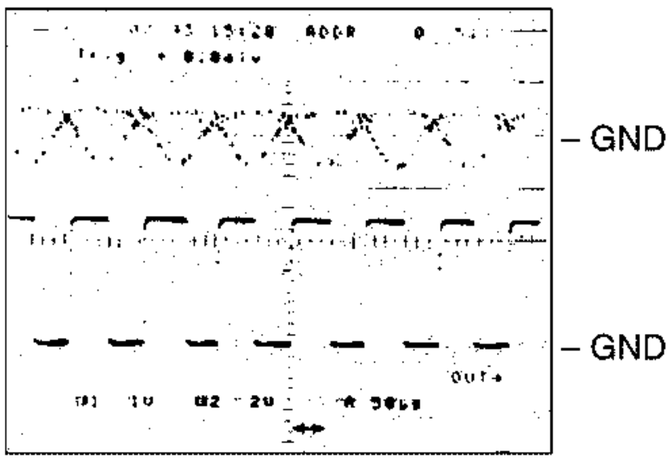
19 IC301-Pin 52 : PLAY MODE (1kHz)
(PCMD)
2V/div 500nsec/div



53 IC301-Pin 38 : PLAY MODE
(PCO)
2V/div 10 µsec/div



23 TRACK SEARCH MODE
Upper : TP1-Pin 1 (RF) 1V/div
Lower : IC151-Pin 23 (C.OUT)
2V/div 50 µsec/div



4. PCB CONNECTION DIAGRAM

4.1 LOADING BOARD ASSY, SELECT BOARD ASSY, MOTOR BOARD ASSY AND MECHANISM BOARD ASSY

SIDE A

MULTI MECHANISM ASSY (PXA1592)

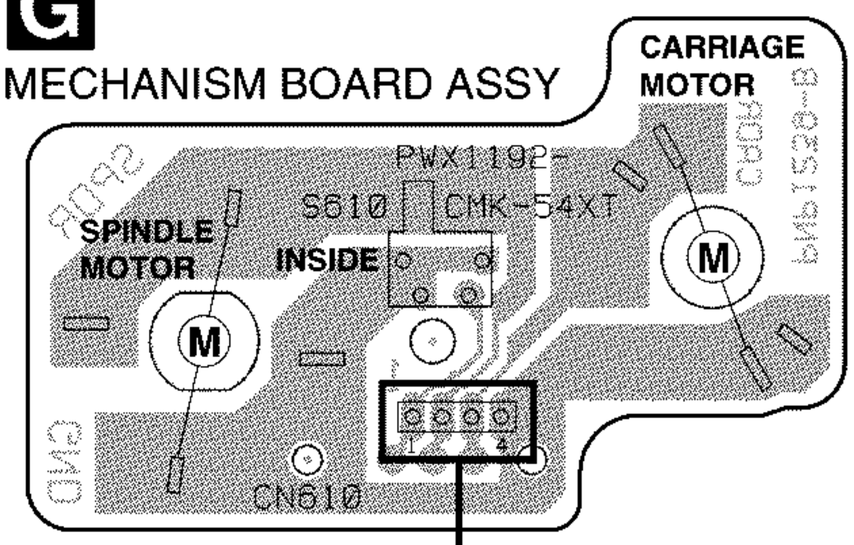
SERVO MECHANISM ASSY M (PXA1595)

CN102

PICKUP ASSY
(PEA1335)

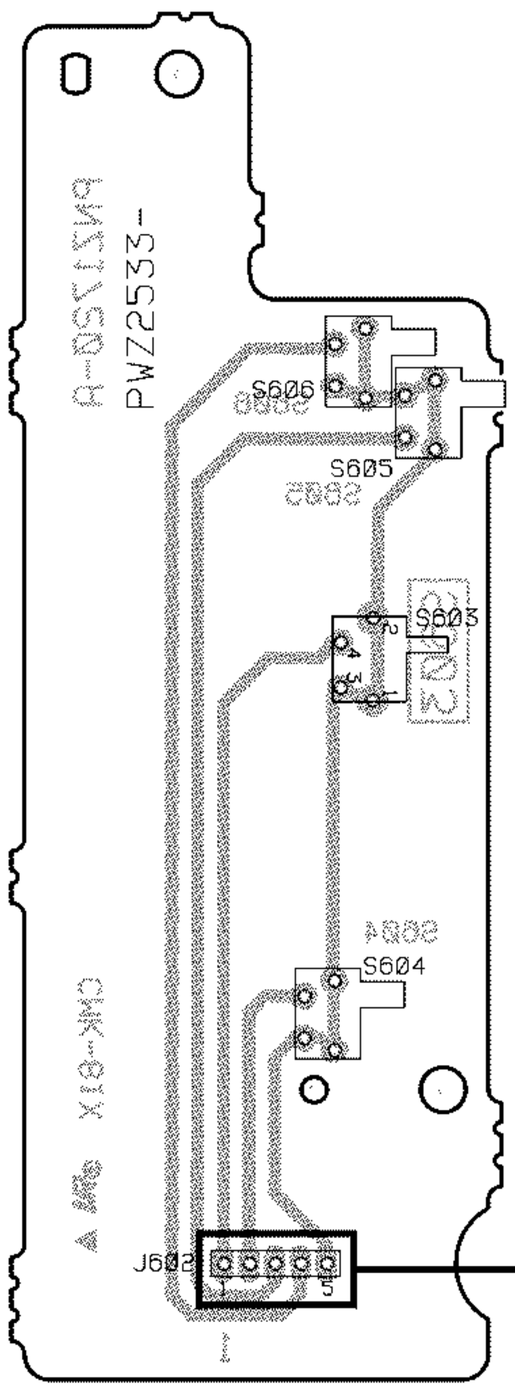
A
CN131

G
MECHANISM BOARD ASSY

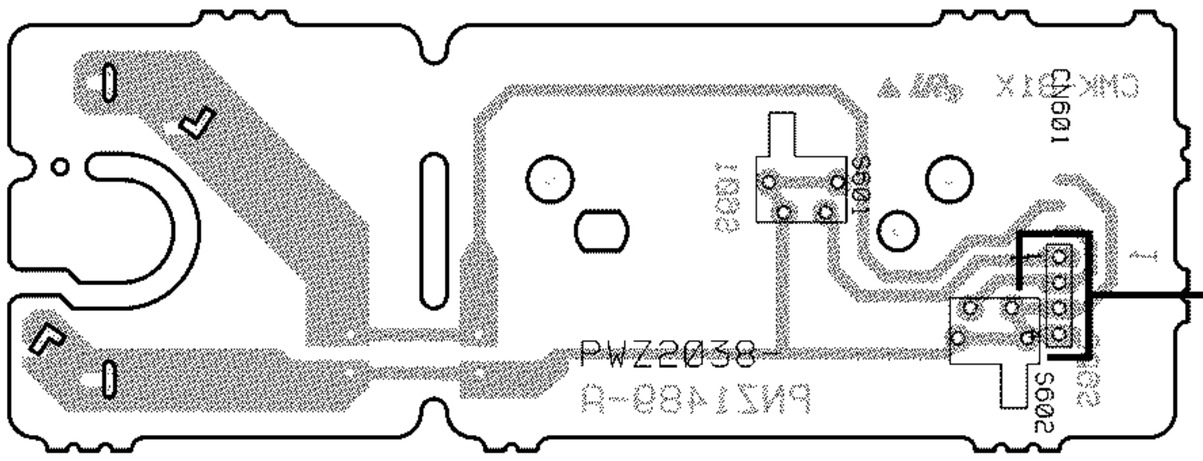


A
CN202

C
SELECT BOARD ASSY

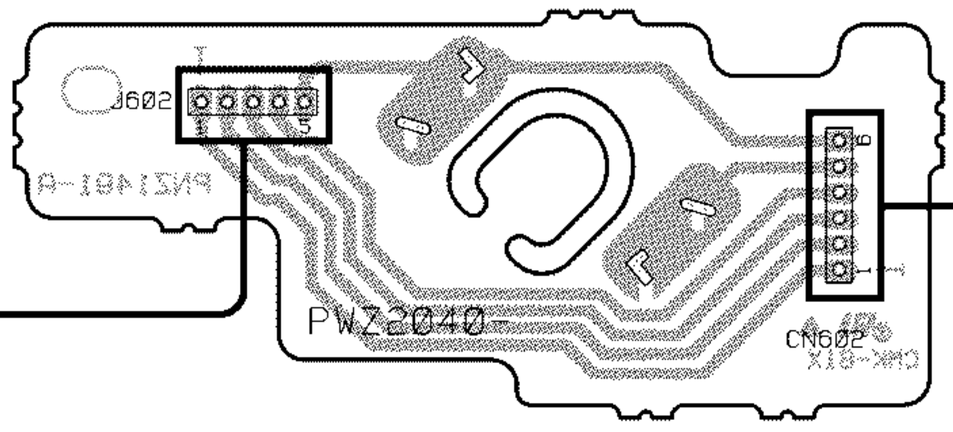


B
LOADING BOARD ASSY



A
CN203

D
MOTOR BOARD ASSY



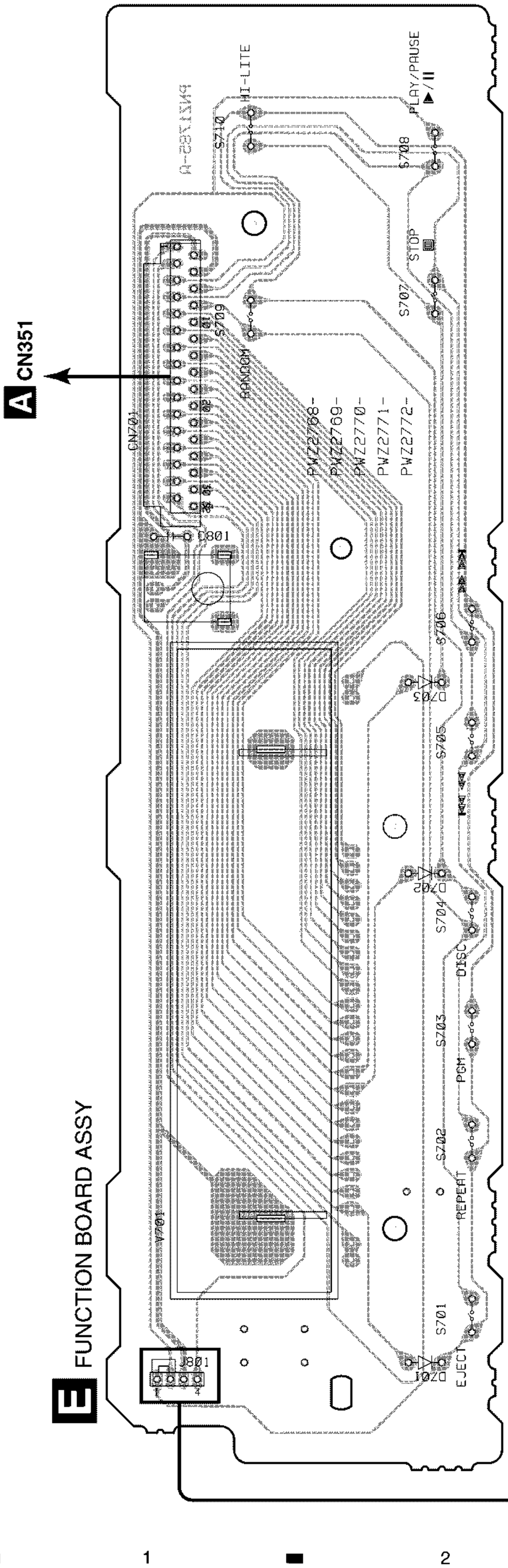
A
CN204

PNP1331-A

B C D G

4.2 FUNCTION BOARD ASSY AND SW BOARD ASSY

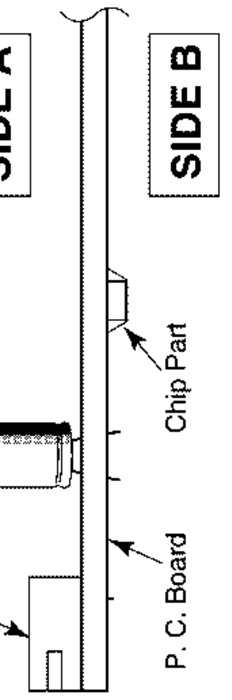
SIDE A



Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Resistor array
		3-terminal regulator

3. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.

4. Viewpoint of PCB diagrams



NOTE FOR PCB DIAGRAMS:

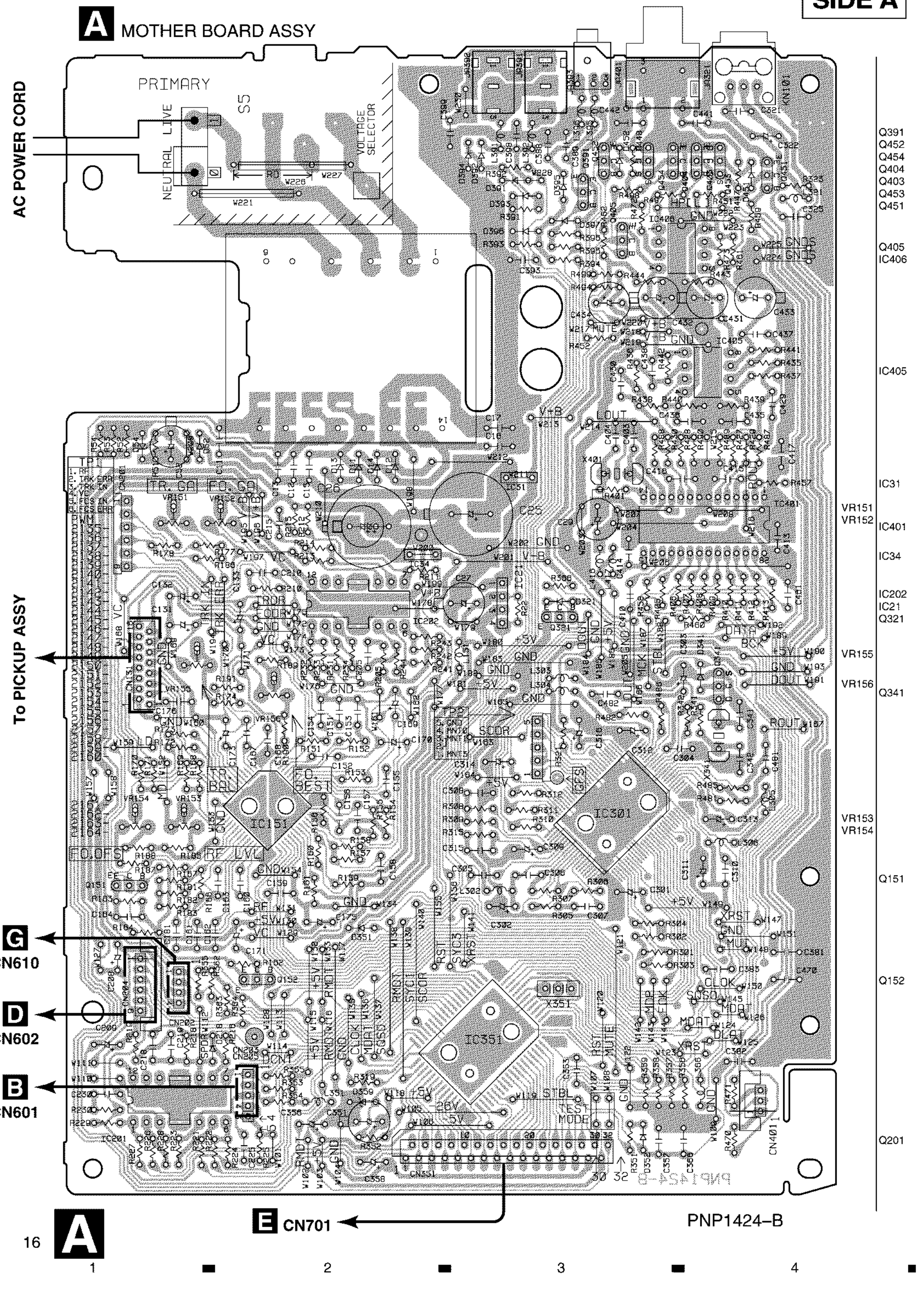
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
B C E	B C E	Transistor
B C E	B C E	Transistor with resistor
D G S	D G S	Field effect transistor

4.3 MOTHER BOARD ASSY

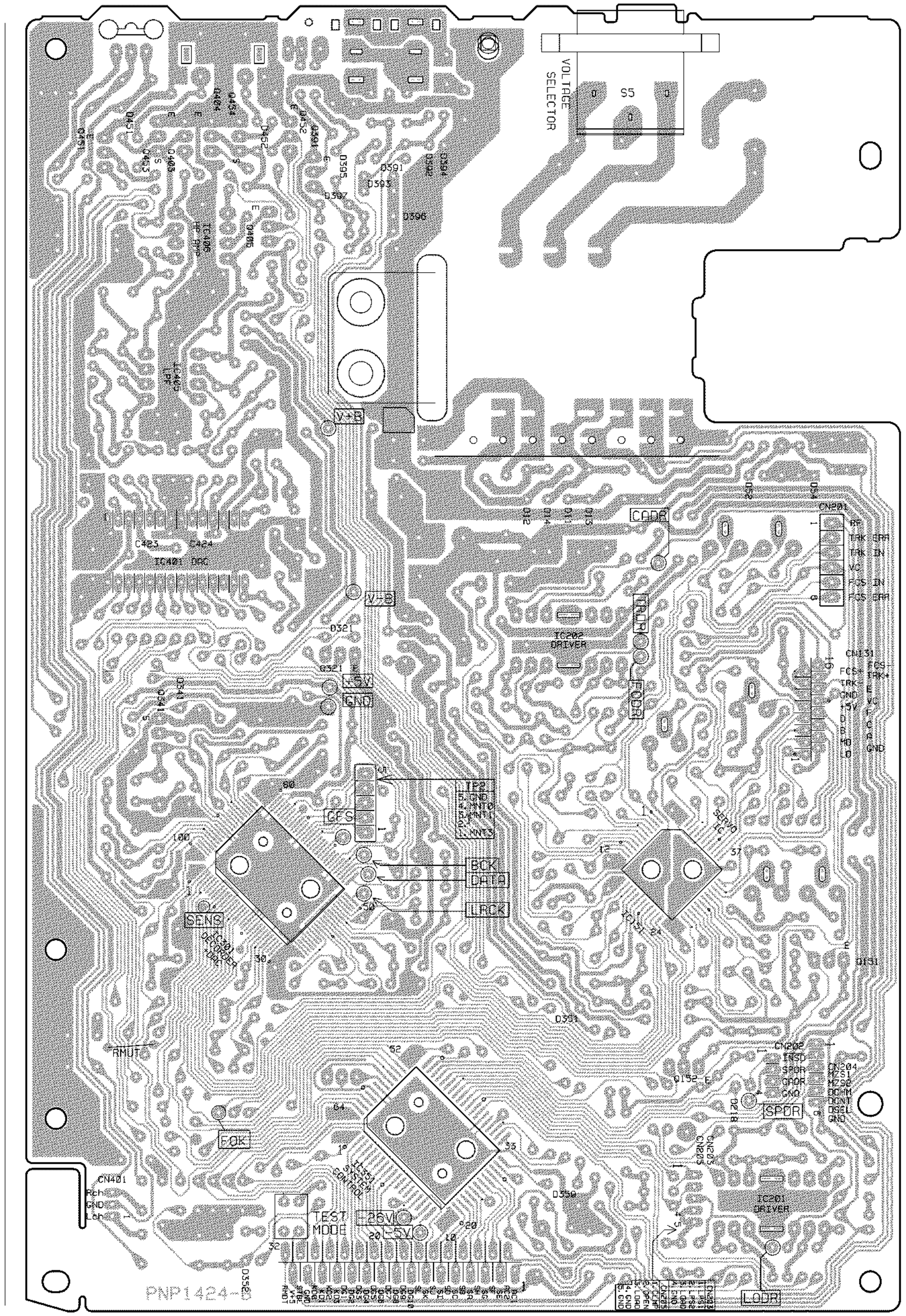
SIDE A

A MOTHER BOARD ASSY



SIDE B

A MOTHER BOARD ASSY



IC301
IC151
IC351

PNP1424–B

5. PCB PARTS LIST

NOTES :
- *Parts marked by "* NSP *" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex. 1 *When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).*

560 Ω → 56 × 10¹ → 561 ..... *RD1/4PU 5 6 1 J*

47k Ω → 47 × 10³ → 473 ..... *RD1/4PU 4 7 3 J*

0.5 Ω → R50 ..... *RN2H R 5 0 K*

1 Ω → 1R0 ..... *RS1P 1 R 0 K*

Ex. 2 *When there are 3 effective digits (such as in high precision metal film resistors).*

5.62k Ω → 562 × 10¹ → 5621 ..... *RN1/4PC 5 6 2 1 F*

■ LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	Part No.					Remarks
		KUXJ/2	KCXJ/2	WYXJ/2	WPWXJ/2	RDXJ/2	
⚠	MOTHER BOARD Assy	PWM2154	PWM2154	PWM2156	PWM2156	PWM2155	
NSP	SUB BOARD Assy	PWX1336	PWX1336	PWX1337	PWX1337	PWX1337	
	├ FUNCTION BOARD Assy	PWZ2769	PWZ2769	PWZ2769	PWZ2769	PWZ2769	
NSP	└ SW BOARD Assy	PWZ2804	PWZ2804	PWZ2805	PWZ2805	PWZ2805	
NSP	MULTI MECHANISM Assy	PXA1592	PXA1592	PXA1592	PXA1592	PXA1592	
NSP	├ MECHA BOARD Assy	PWX1279	PWX1279	PWX1279	PWX1279	PWX1279	
NSP	├ LOADING BOARD Assy	PWZ2038	PWZ2038	PWZ2038	PWZ2038	PWZ2038	
NSP	├ MOTOR BOARD Assy	PWZ2040	PWZ2040	PWZ2040	PWZ2040	PWZ2040	
NSP	└ SELECT BOARD Assy	PWZ2533	PWZ2533	PWZ2533	PWZ2533	PWZ2533	
NSP	└ SERVO MECHANISM Assy M	PXA1595	PXA1595	PXA1595	PXA1595	PXA1595	
NSP	└ MECHANISM BOARD Assy	PWX1192	PWX1192	PWX1192	PWX1192	PWX1192	

■ CONTRAST OF PCB ASSEMBLIES

SW BOARD Assy

PWZ2804 and PWZ2805 are constructed the same except for the following:

Mark	Symbol and Description	Part No.		Remarks
		PWZ2804	PWZ2805	
	D801	Not used	PCX1019	
NSP	J801	D20PWW0220E	D20PWW0420E	

MOTHER BOARD Assy

PWM2154, PWM2155 and PWM2156 are constructed the same except for the following:

Mark	Symbol and Description	Part No.			Remarks
		PWM2154	PWM2155	PWM2156	
	IC401	Not used	Not used	PD2026B (L)	
	Q341	2SK246	2SK246	Not used	
	D341, D391~D394	1SS254	1SS254	Not used	
	D352	Not used	1SS254	1SS254	
	L391	LAU1R0J	LAU1R0J	Not used	
⚠	S5	Not used	PSB1006	Not used	

MOTHER BOARD Assy

Mark	Symbol and Description	Part No.			Remarks
		PWM2154	PWM2155	PWM2156	
	C29, C461	Not used	Not used	CKCYF103Z50	
	C312, C313	CEAS101M10	CEAS101M10	CKCYF103Z50	
	C341, C342	CCCCH120J50	CCCCH120J50	Not used	
	C393	CCCSL101J50	CCCSL101J50	Not used	
	C403	Not used	Not used	CCCCH120J50	
	C404	Not used	Not used	CCCCH220J50	
	C413–C416	Not used	Not used	CFTXA104J50	
	C429, C430, C435–C438	Not used	Not used	CCCSL390J50	
	C431, C432	Not used	Not used	CEAT330M16	
	C481, C482	CCCSL390J50	CCCSL390J50	Not used	
	R310–R312	Not used	Not used	RD1/4PU221J	
	R341	RD1/4PU271J	RD1/4PU271J	Not used	
	R342, R366	RD1/4PU105J	RD1/4PU105J	Not used	
	R351	Not used	RD1/4PU271J	RD1/4PU271J	
	R391	PD1/4PU244J	PD1/4PU244J	Not used	
	R392	RD1/4PU102J	RD1/4PU102J	Not used	
	R401	Not used	Not used	RD1/4PU102J	
	R405–R410	Not used	Not used	RD1/4PU471J	
	R411–R413	Not used	Not used	RD1/4PU221J	
	R427–R430	Not used	Not used	RD1/4PU223J	
	R435, R436	Not used	Not used	RD1/4PU163J	
	R437, R438	RD1/4PU473J	RD1/4PU473J	RD1/4PU163J	
	R439–R442	RD1/4PU823J	RD1/4PU823J	RD1/4PU433J	
	R481, R482, R485, R486	RD1/4PU223J	RD1/4PU223J	Not used	
	R487–R490	RD1/4PU104J	RD1/4PU104J	Not used	
	JA391, JA392	RKN1004	RKN1004	Not used	
	X341	PSS1008	PSS1008	Not used	
	X401	Not used	Not used	PSS1008	

■ PARTS LIST FOR PD-M426/KUXJ/2

Mark	No.	Description	Parts No.
		A MOTHER BOARD ASSY	
		SEMICONDUCTORS	
		IC151	CXA1782CQ
		IC301	CXD2519Q
⚠		IC31, IC34	ICP–N10
⚠		IC201, IC202	LA6520
		IC405	NJM4558D–D
		IC351	PD4836A
⚠		IC21	PQ05RR12
		Q151	2SA854S
		Q403, Q404	2SD2144S
		Q341	2SK246
		Q152	DTA124ES
		Q405	DTC124ES
		D341, D391–D394	1SS254
		D54	MTZJ18B
		D359	MTZJ5.1B
		D218	MTZJ6.2B
⚠		D11–D14, D52	S5688G
		COILS AND FILTERS	
	L351	AXIAL INDUCTOR	LAU100J
	L391	AXIAL INDUCTOR	LAU1R0J
		CAPACITORS	
		C181	CCCCH100D50
		C341, C342	CCCCH120J50
		C393	CCCSL101J50
		C383	CCCSL181J50
		C315	CCCSL221J50

Mark	No.	Description	Parts No.
	C481, C482		CCCSL390J50
	C171, C175, C302, C311–C314		CEAS101M10
	C316		CEAS101M10
	C52		CEAS101M35
	C26		CEAS102M16
	C433, C434		CEAS220M25
	C131–C133, C27		CEAS330M16
	C25		CEAS332M16
	C351		CEAS471M6R3
	C169, C170, C356		CEAS4R7M50
	C309		CEASR47M50
	C156, C161, C164, C168, C218		CGCYX103K25
	C160		CGCYX333K25
	C167		CGCYX472K25
	C152, C307		CGCYX473K25
	C157		CGCYX823K25
	C163		CKCYB102K50
	C176, C306, C441, C442		CKCYB152K50
	C305		CKCYB222K50
	C162		CKCYB332K50
	C151		CKCYB682K50
	C11, C13, C15, C159		CKCYF103Z50
	C16, C17, C205, C210, C215		CKCYF103Z50
	C219, C301, C304, C310, C353		CKCYF103Z50
	C357		CKCYF103Z50
	C153–C155, C158		CQMA104J50

RESISTORS

VR153, VR155 (10k Ω)		RCP1045
VR151, VR152, VR154 (22k Ω)		RCP1046
VR156 (220k Ω)		RCP1049
Other Resistors		RD1/4PU□□□J

OTHERS

CN202	MT 4P CONNECTOR	173981–4
CN203	CONNECTOR 4P	4–173981–4
CN204	6P JUMPER CONNECTOR	52147–0610
CN351	32P FFC CONNECTOR	HLEM32S–1
JA401	2P PIN JACK	PKB1023
X341	(16.9344 MHz)	PSS1008
⚠	TERMINAL	RKC–061
JA391, JA392	SR JACK	RKN1004
CN201	CONNECTOR 6P	RKP–533
CN131	FFC CONNECTOR	SLW16S–1C7
X351	(4.19 MHz)	VSS1014

E FUNCTION BOARD ASSY

SEMICONDUCTORS

D701–D703	1SS133X

SWITCHES AND RELAYS

S701–S710	PSG1006

OTHERS

CN701	FFC CONNECTOR	9607S–32F
V701	FL INDICATOR TUBE	PEL1084
	REMOTE SENSOR	SBX1785–51

Mark	No.	Description	Parts No.

F SW BOARD ASSY

SWITCHES AND RELAYS

S801	PSG1006

OTHERS

NSP	J801 2P	D20PWW0220E

B LOADING BOARD ASSY

SWITCHES AND RELAYS

S601, S602	DSG1016

OTHERS

CN601	CONNECTOR 4P	4–173979–4

D MOTOR BOARD ASSY

OTHERS

CN602	6PJUMPER CONNECTOR	52151–0610

C SELECT BOARD ASSY

SWITCHES AND RELAYS

S604–S606	DSG1016
S603	PSG1010

G MECHANISM BOARD ASSY

SWITCHES AND RELAYS

S610	DSG1016

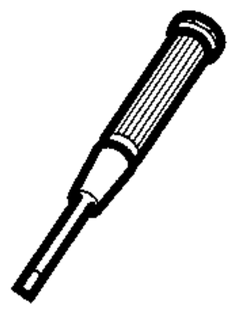
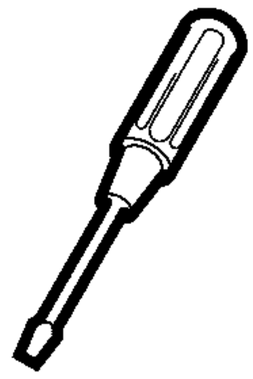
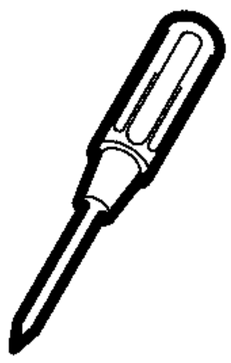
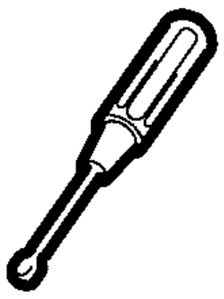
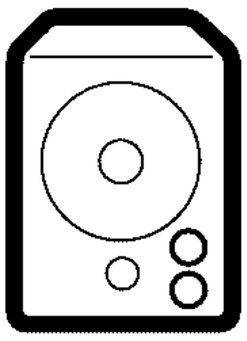
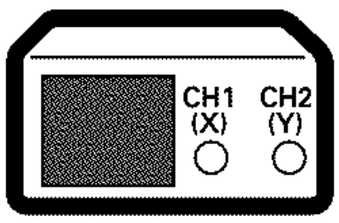
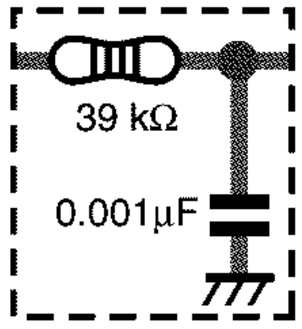
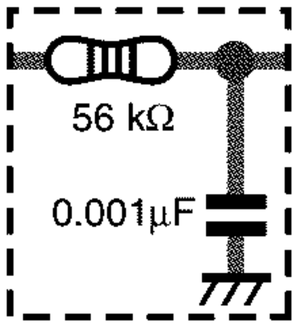
OTHERS

CN610	MT 4P CONNECTOR	173979–4

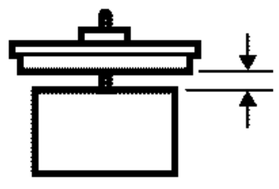
6. ADJUSTMENT

6.1 PREPARATIONS

6.1.1 Jigs and Measuring Instruments

 CD TEST DISC (YEDS-7)	 ⊖ Precise screwdriver	 ⊖ screwdriver (small)	 ⊕ screwdriver (medium)	 ⊕ screwdriver (large)
 Ball point hexagon wrench (size: 1.5mm) GGK1002	 Low-frequency oscillator	 Dual-trace oscilloscope (10 : 1 probe)	 Low pass filter ① (39 kΩ + 0.001μF)	 Low pass filter ② (56 kΩ + 0.001μF)

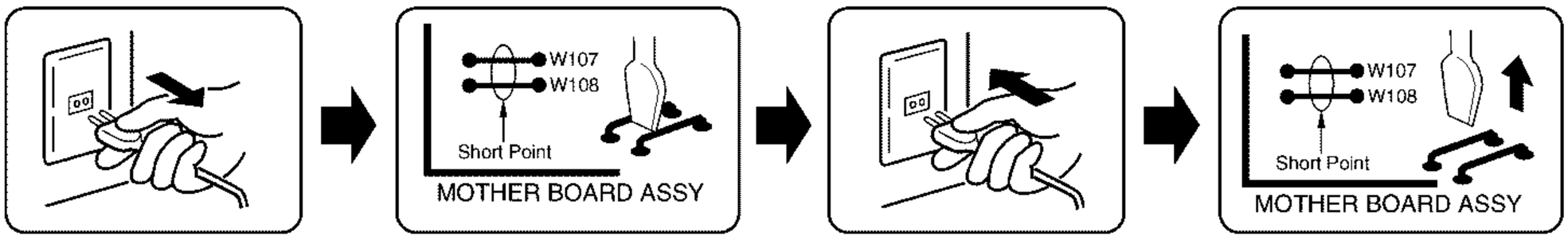
6.1.2 Necessary Adjustment Points

When	Adjustment points
Exchange PICKUP	1.2.3.4.5.6.7. 8.9.10.11.12 → Page 23~28
Exchange MAIN BOARD ASSY	1.3.5.6.7.8. 9.10.11.12 → Page 23~28
Exchange SERVO MECH ASSY	1.2.3.4.5.6.7. 8.9.10.11.12 → Page 23~28
Exchange SPINDLE MOTOR	 ADJ → Page 9

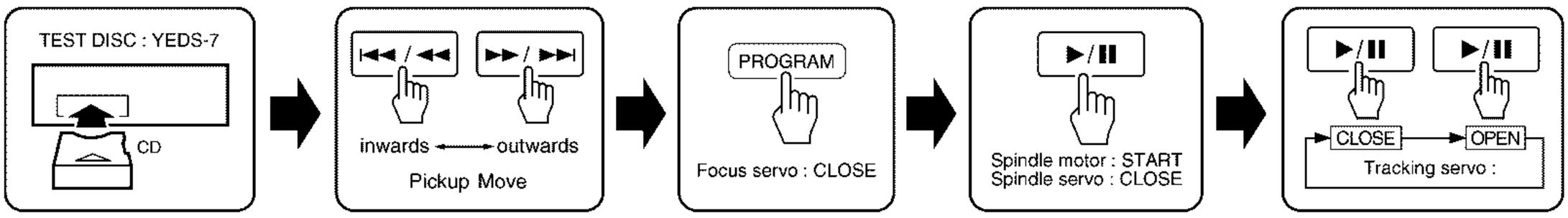
6.2 ADJUSTMENT

6.2.1 How to Start/Cancel Test Mode

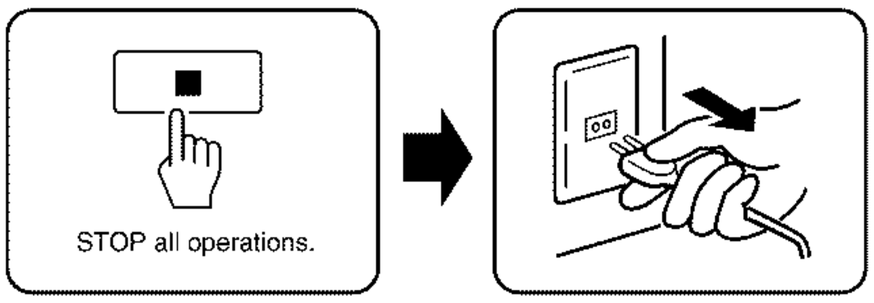
TEST MODE : ON



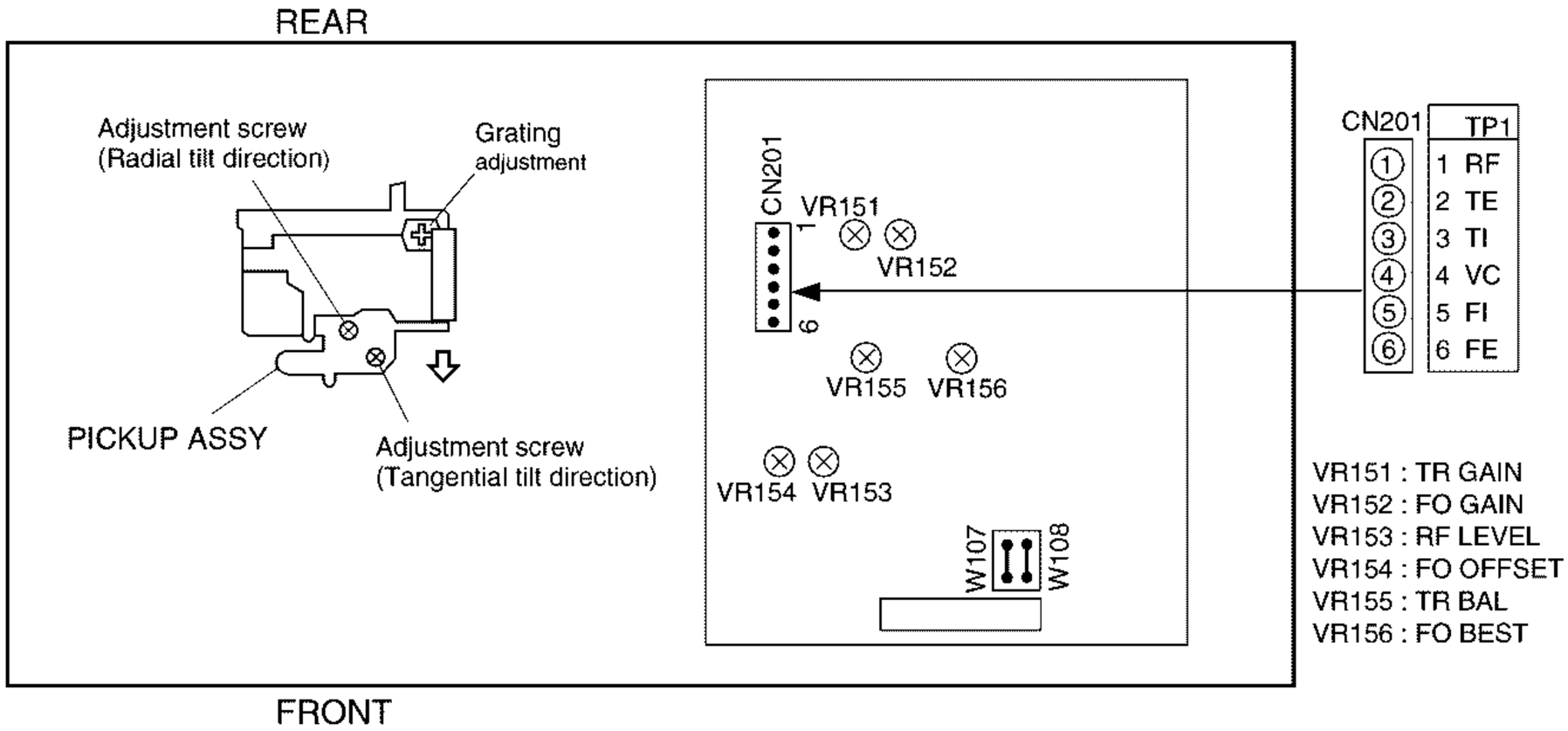
TEST MODE : PLAY



TEST MODE : STOP → CANCEL

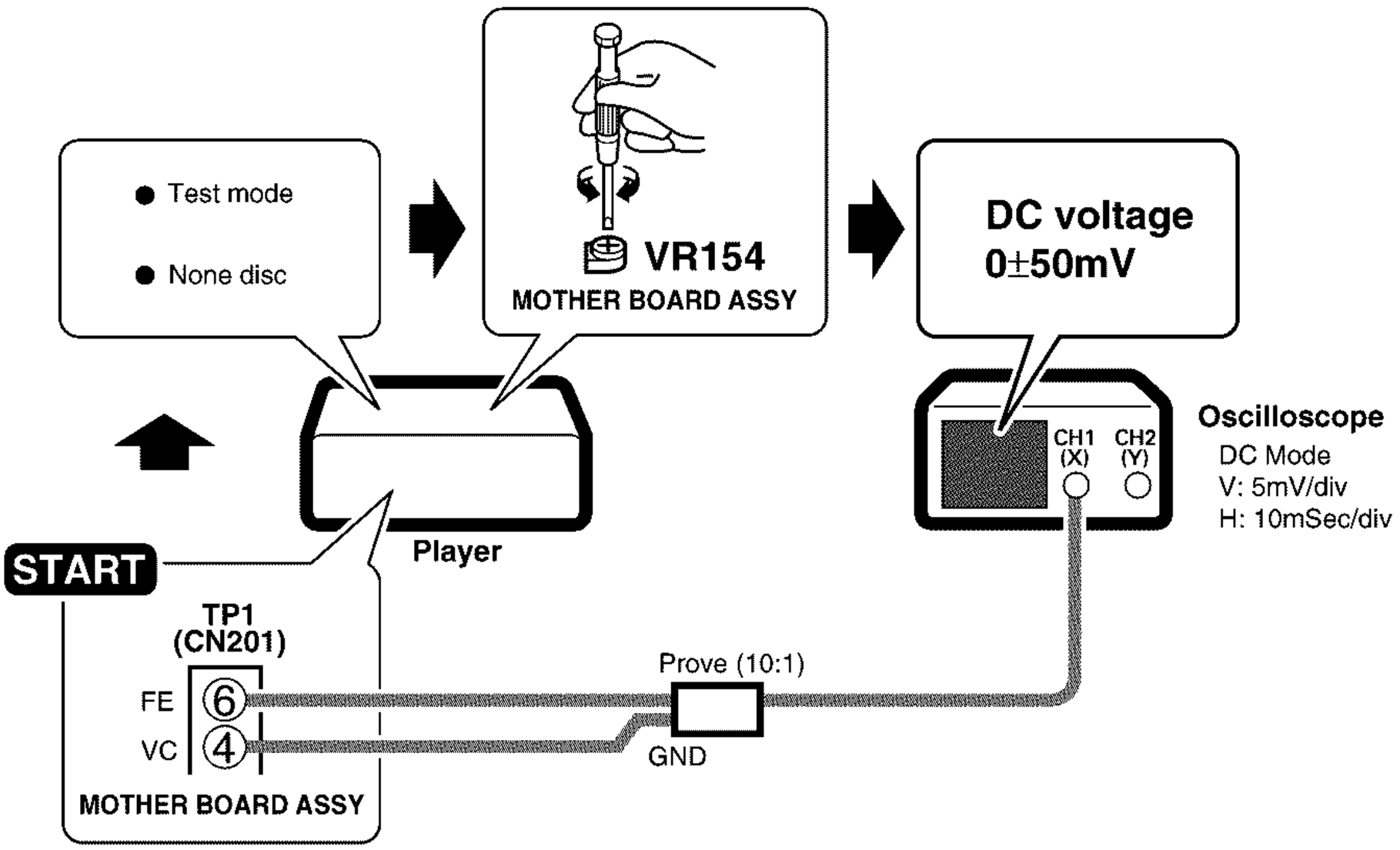


6.2.2 Adjustment Location

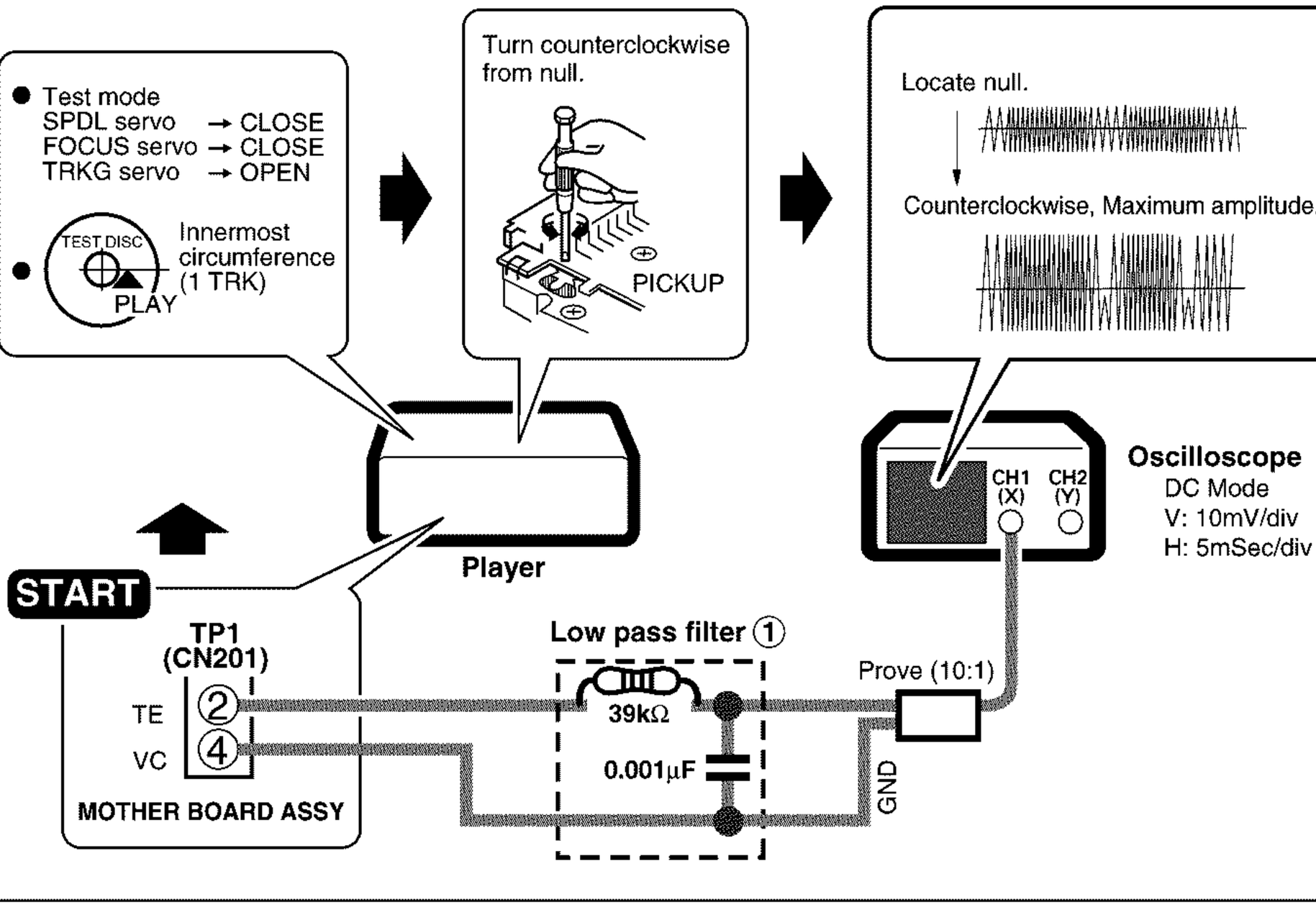


6.2.3 Check and Adjustment

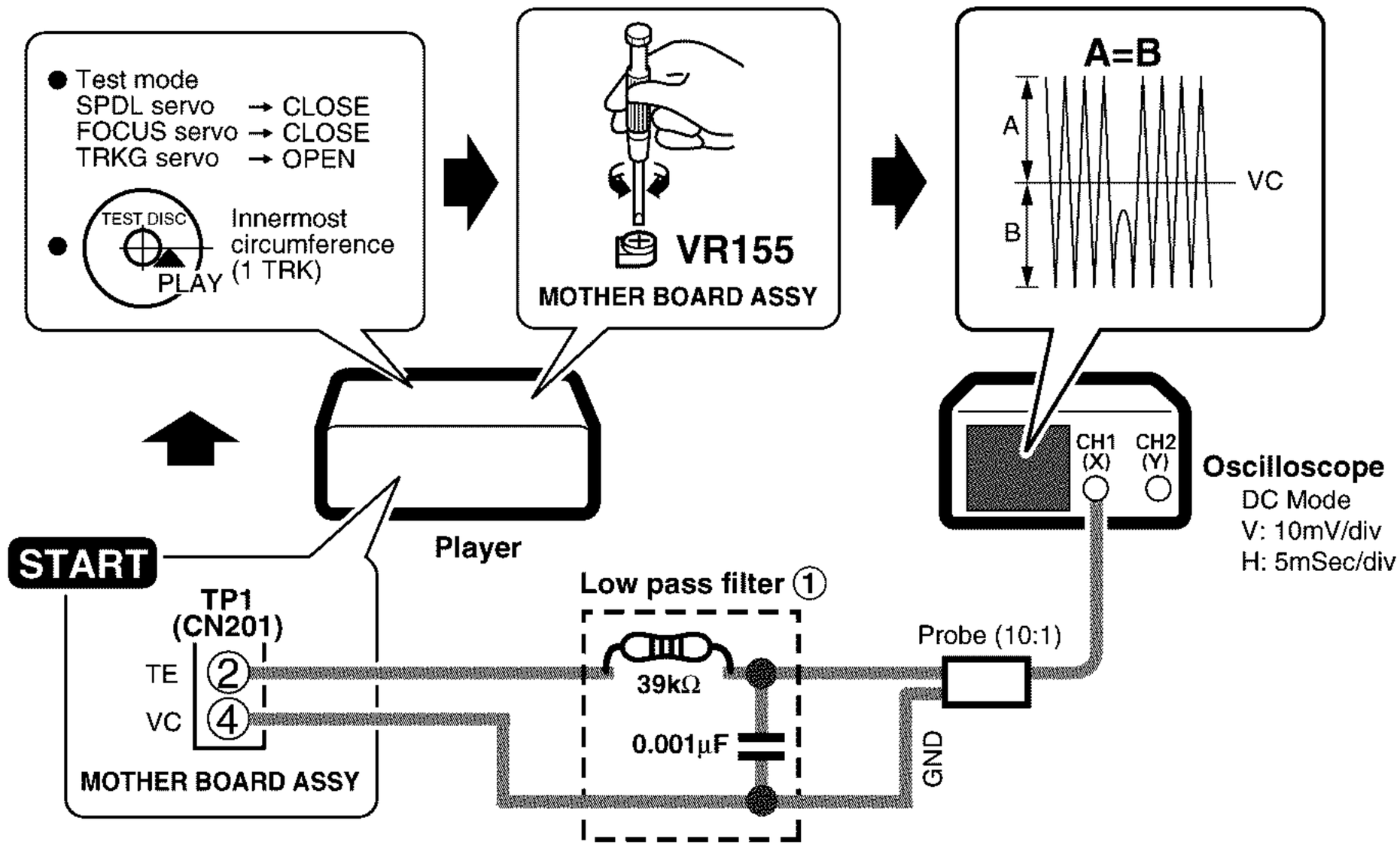
1. Focus Offset Adjustment



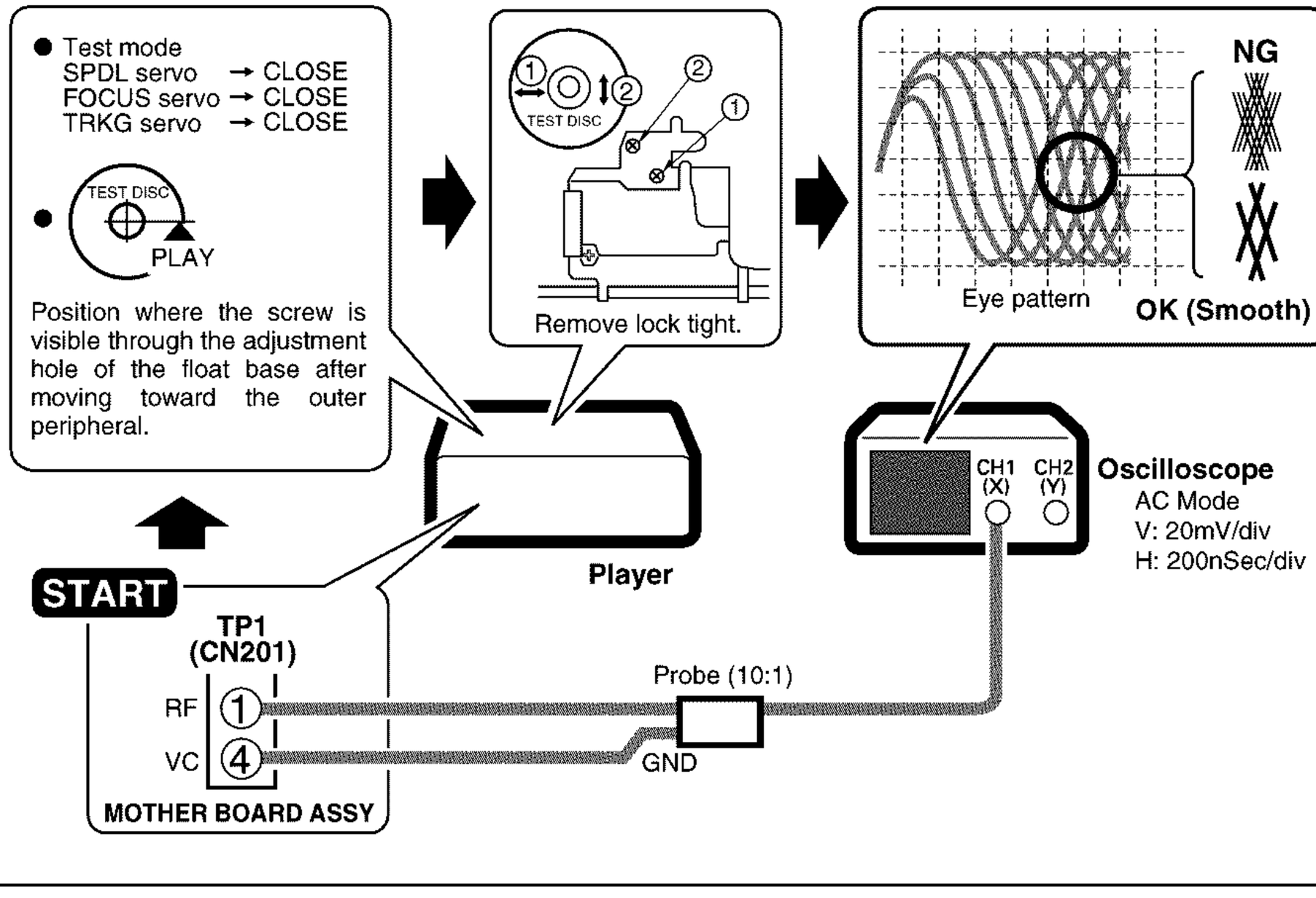
2. Grating Adjustment



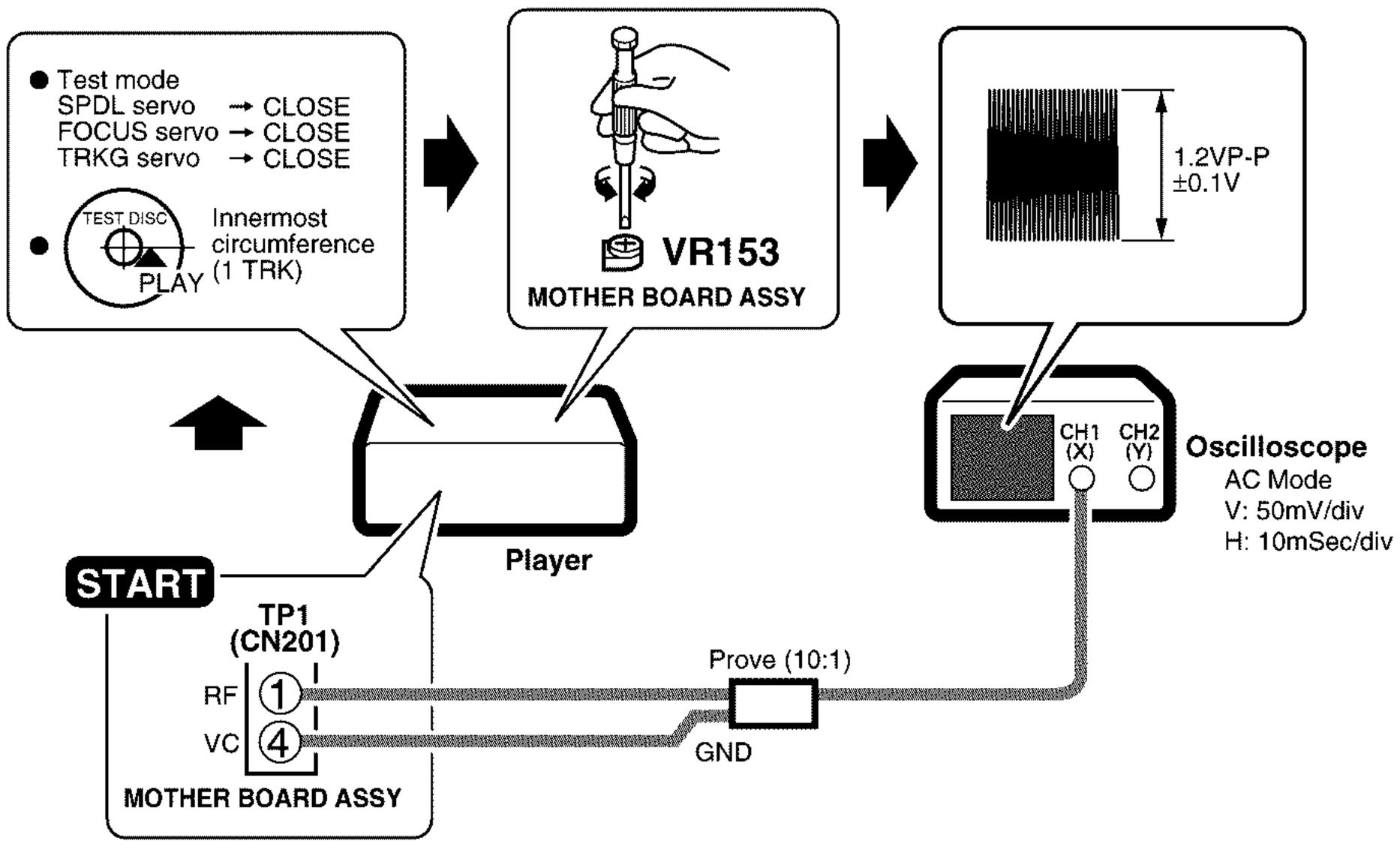
3. Tracking Error Barance Adjustment



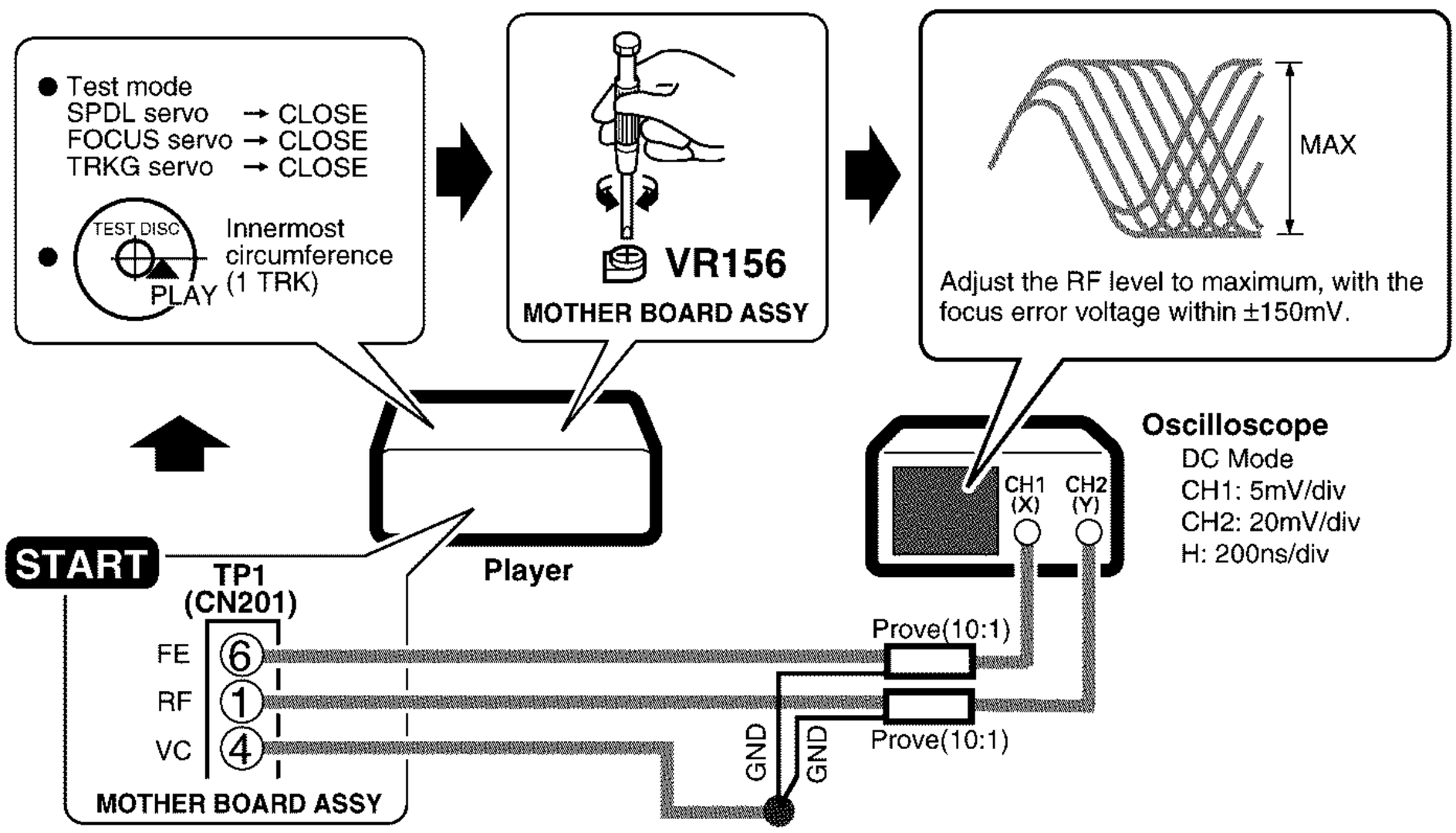
4. Pickup ①Radial/ ②Tangential Direction Tilt Adjustment



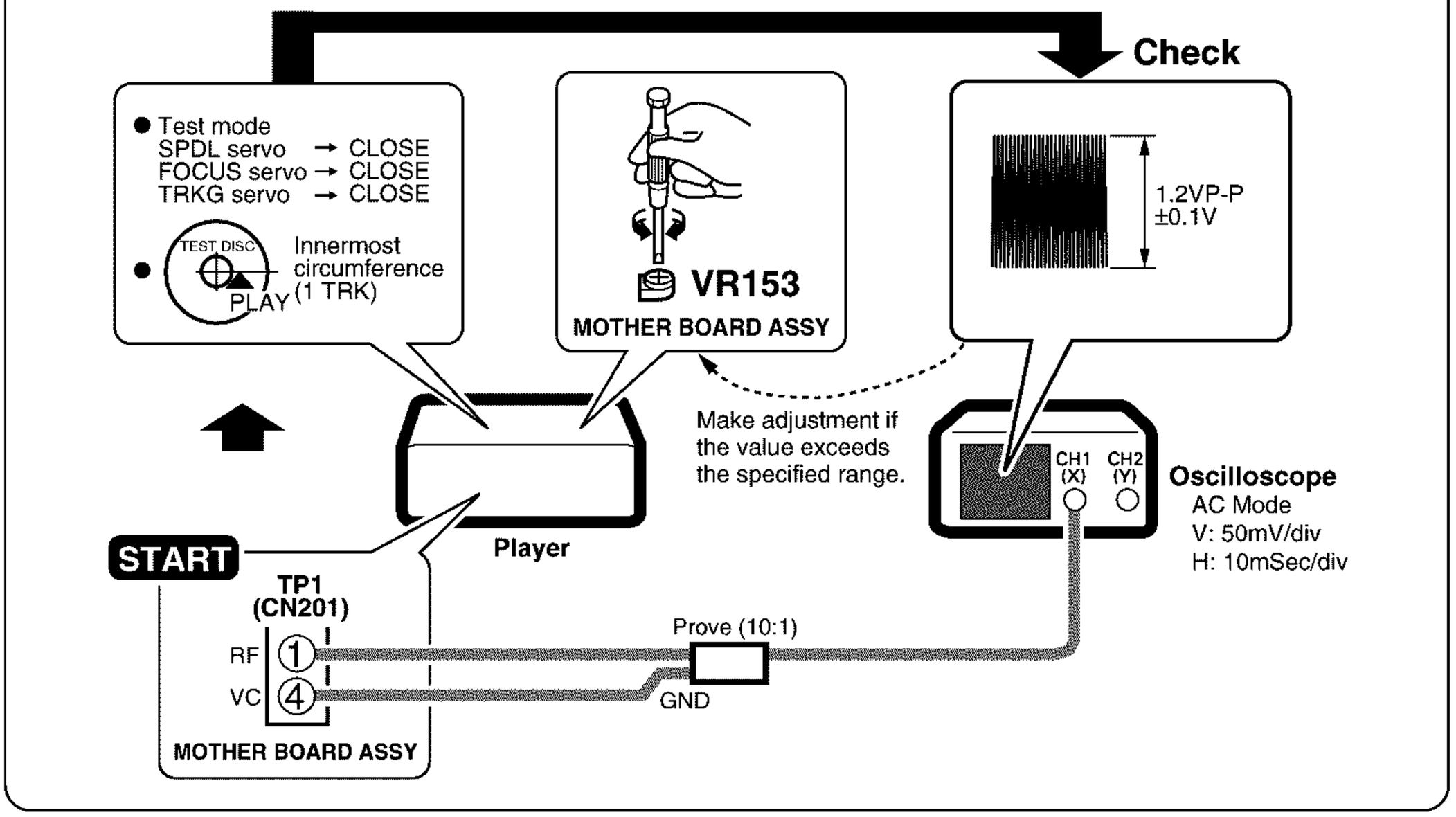
5. RF Level Adjustment I



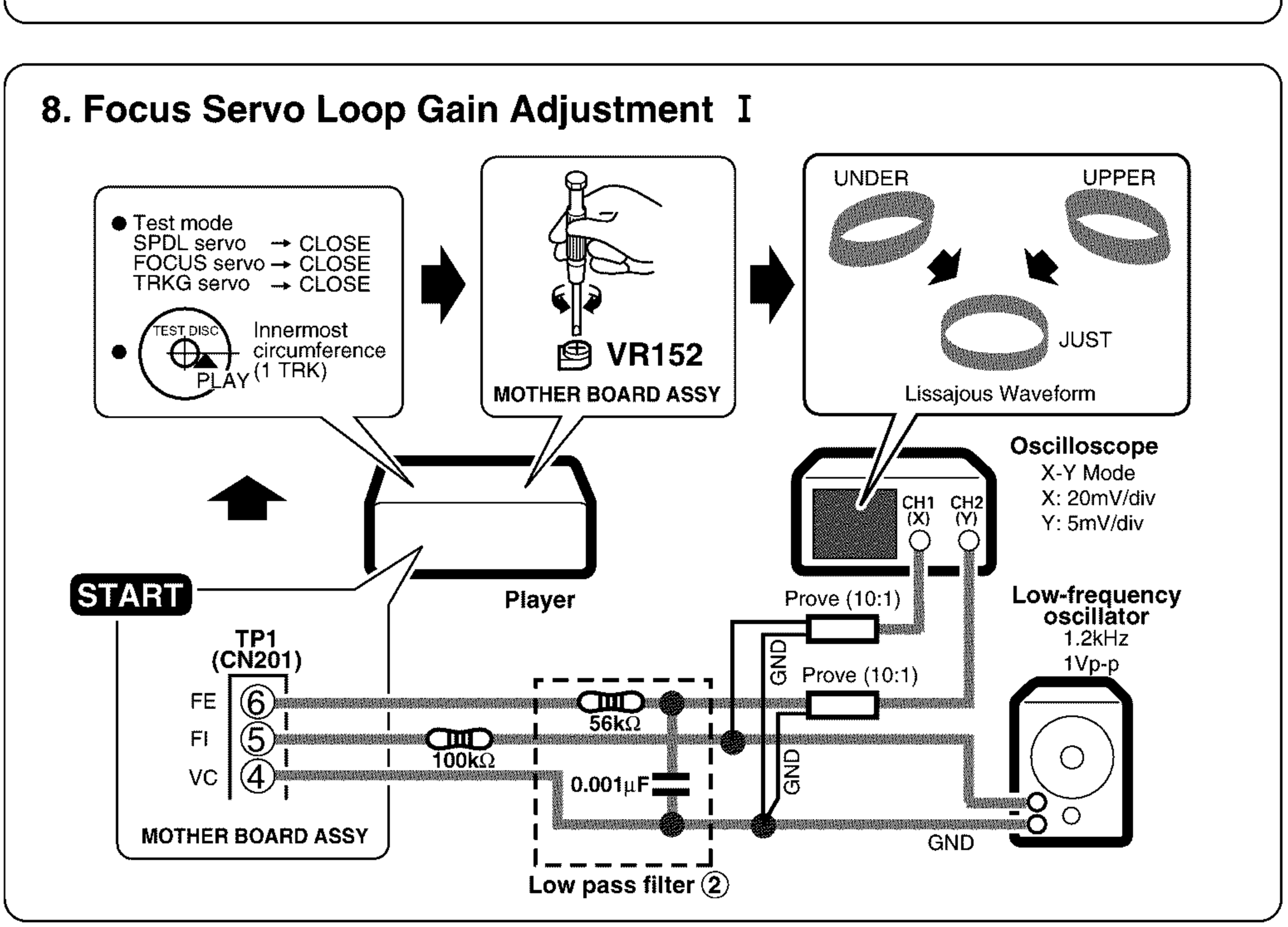
6. Focus Best Adjustment I



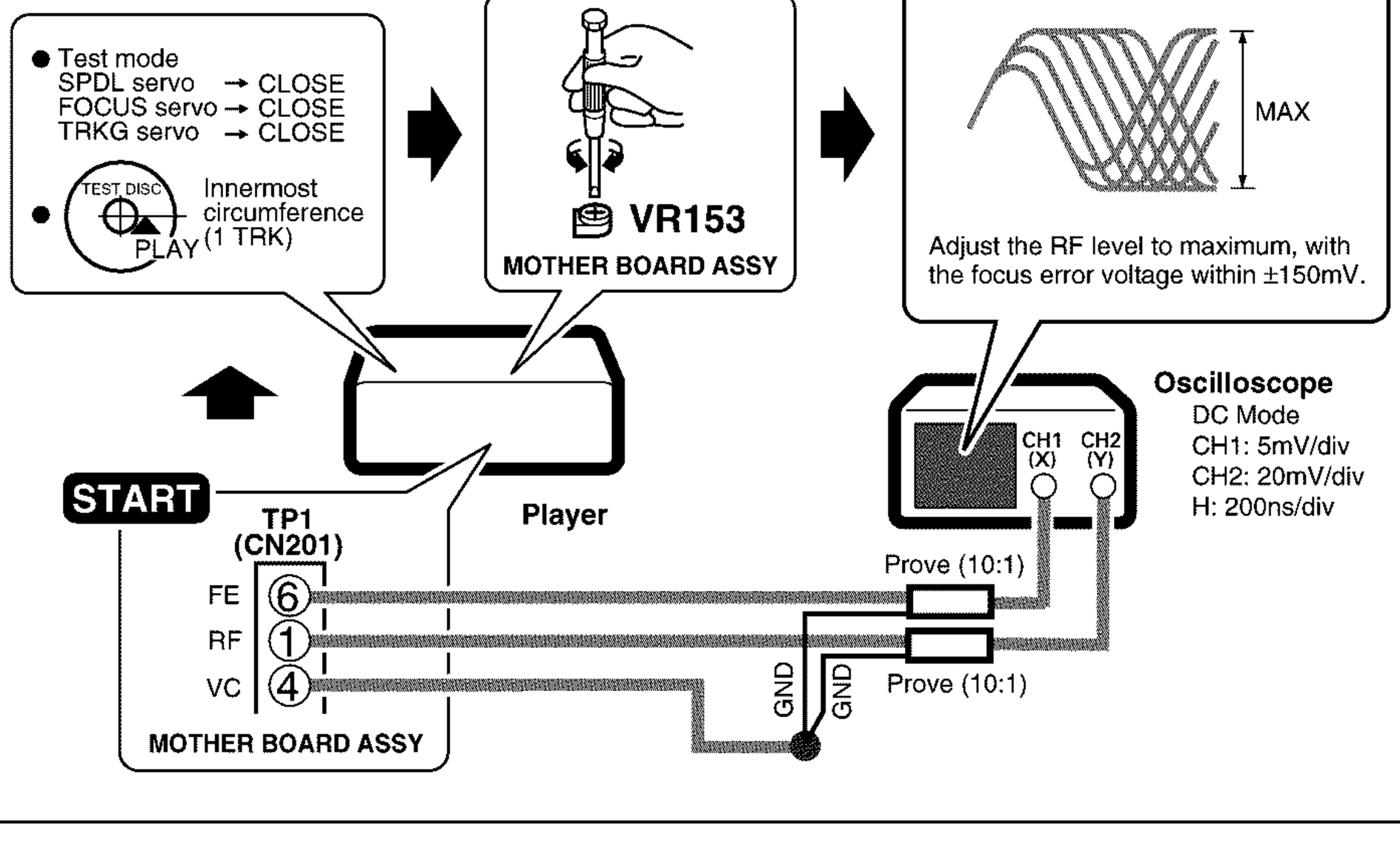
7. RF Level Adjustment Ⅱ



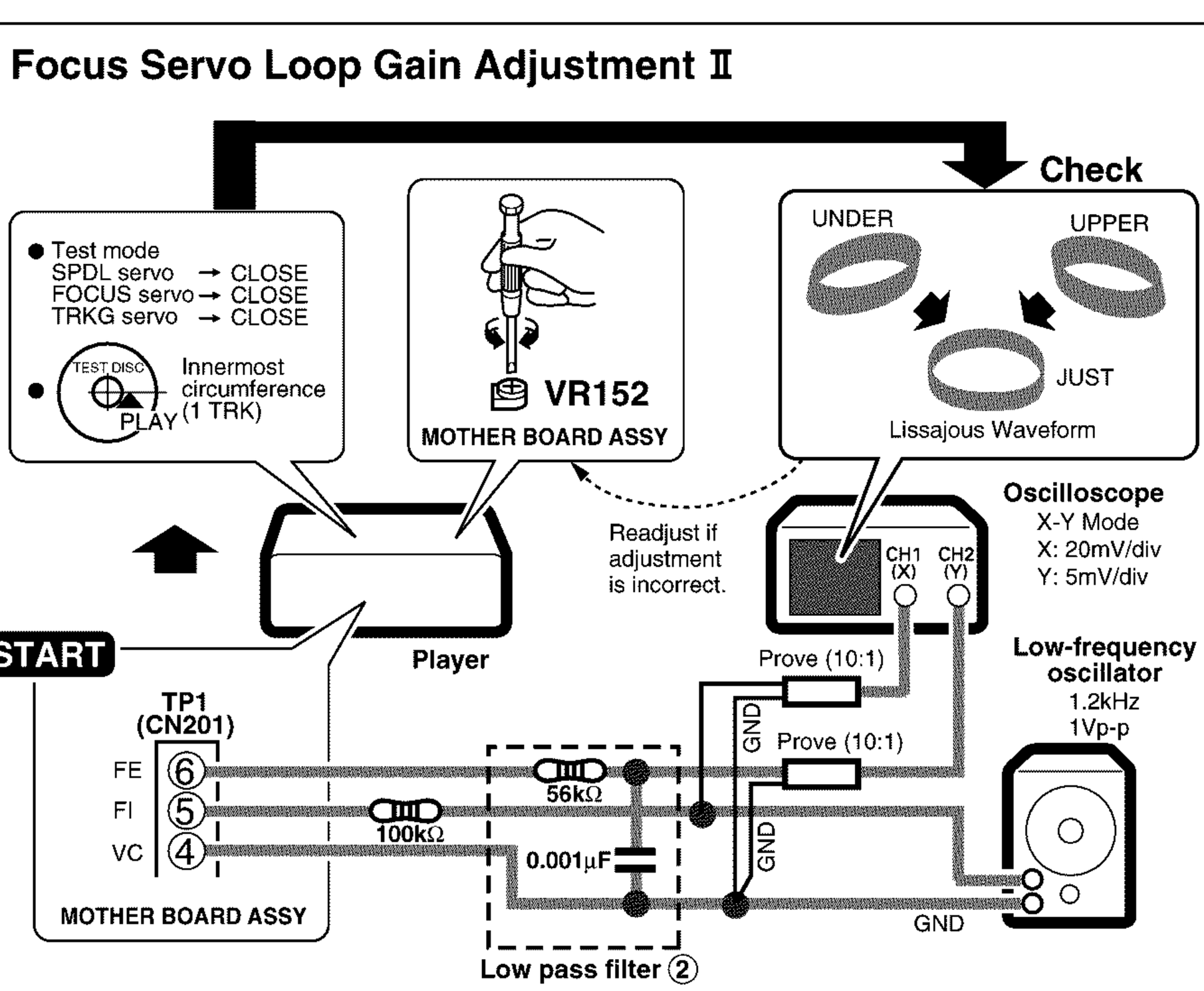
8. Focus Servo Loop Gain Adjustment Ⅰ



9. Focus Best Adjustment Ⅱ

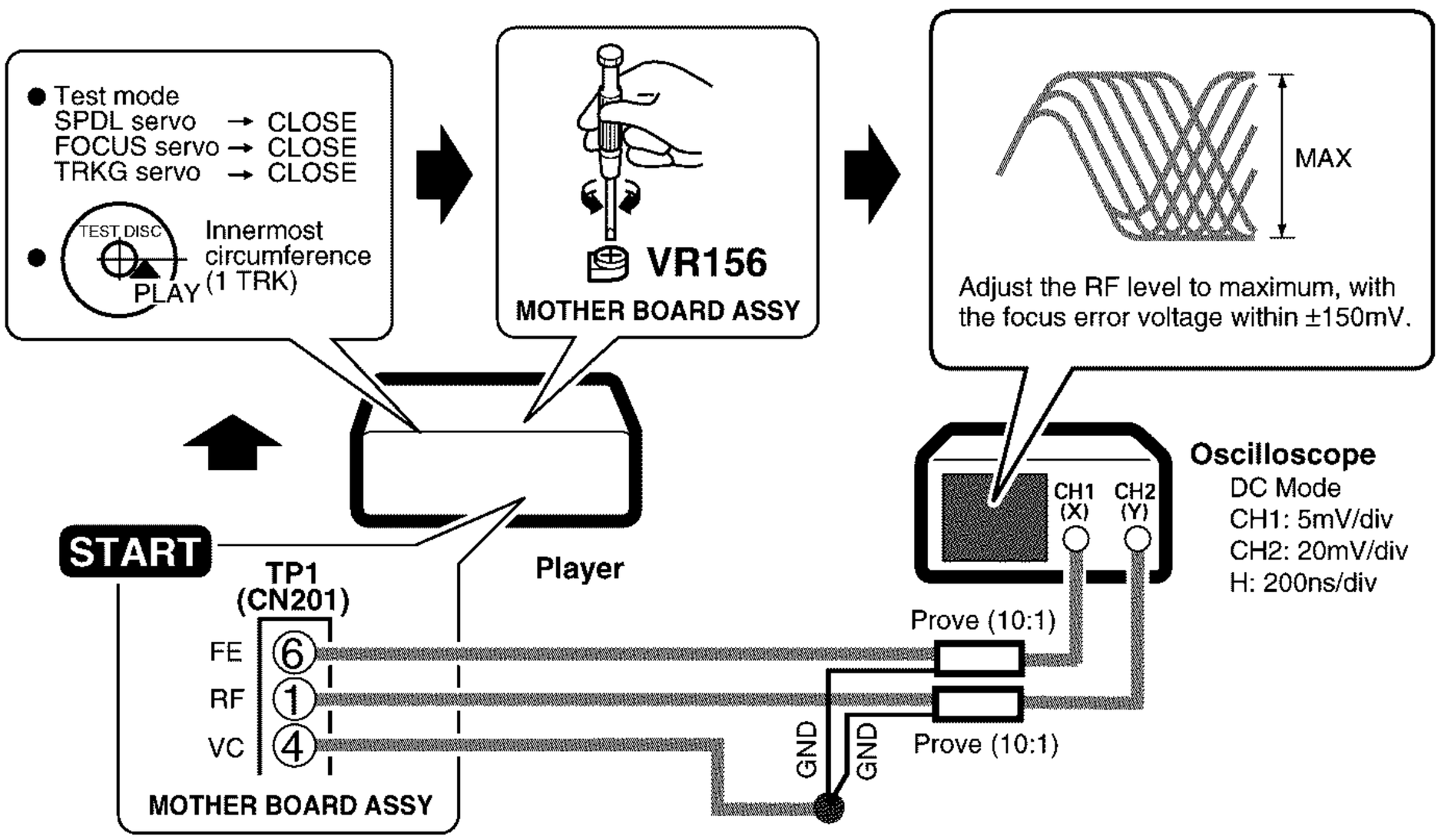


10. Focus Servo Loop Gain Adjustment Ⅱ

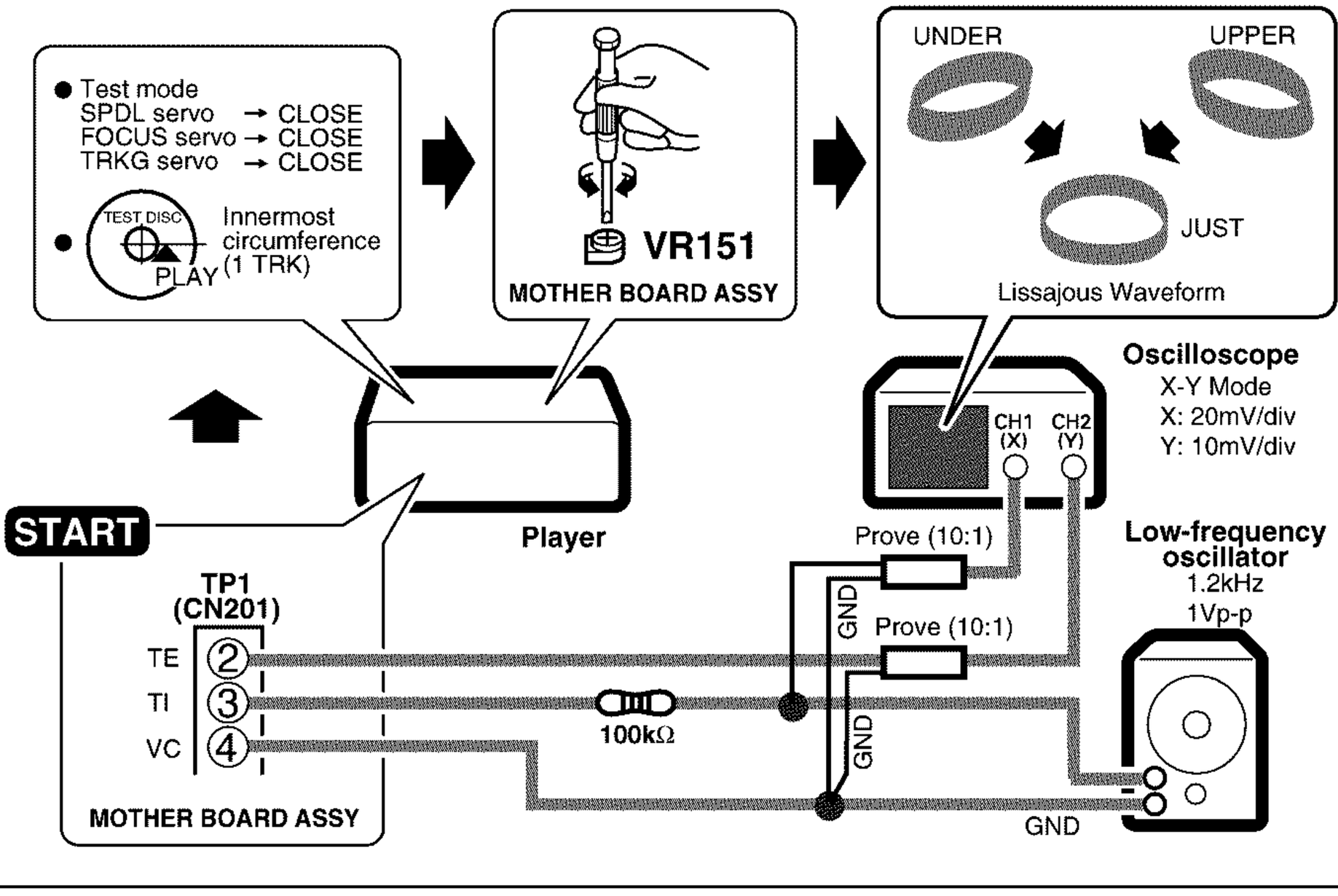


11. Focus Best Adjustment Ⅲ

Adjust this point only if adjustment was made in item 10.



12. Tracking Servo Loop Gain Adjustment

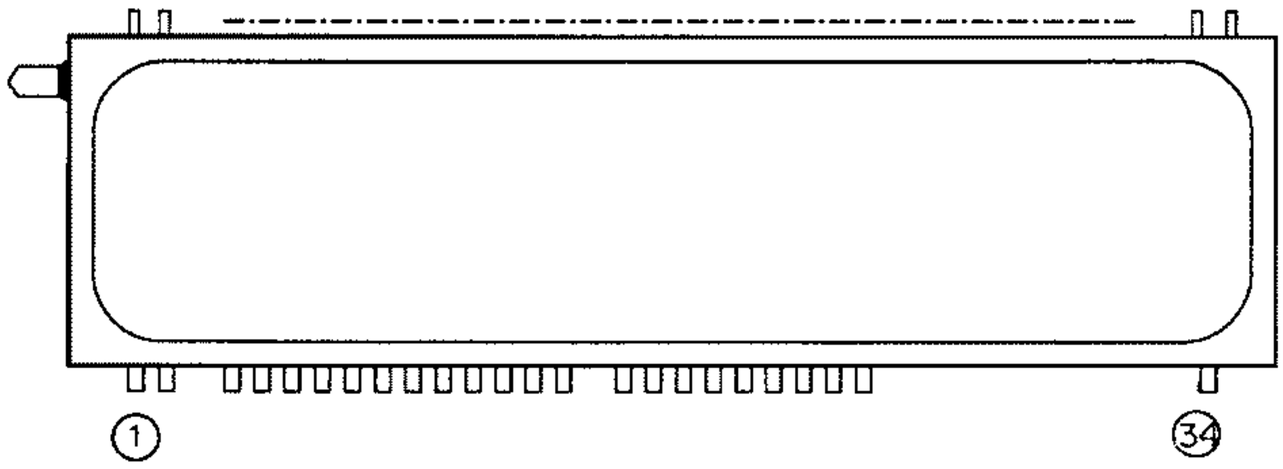


7. GENERAL INFORMATION

7.1 DISPLAY

■ PEL1084 (V701: FUNCTION BOARD ASSY)

● Pin Assignment

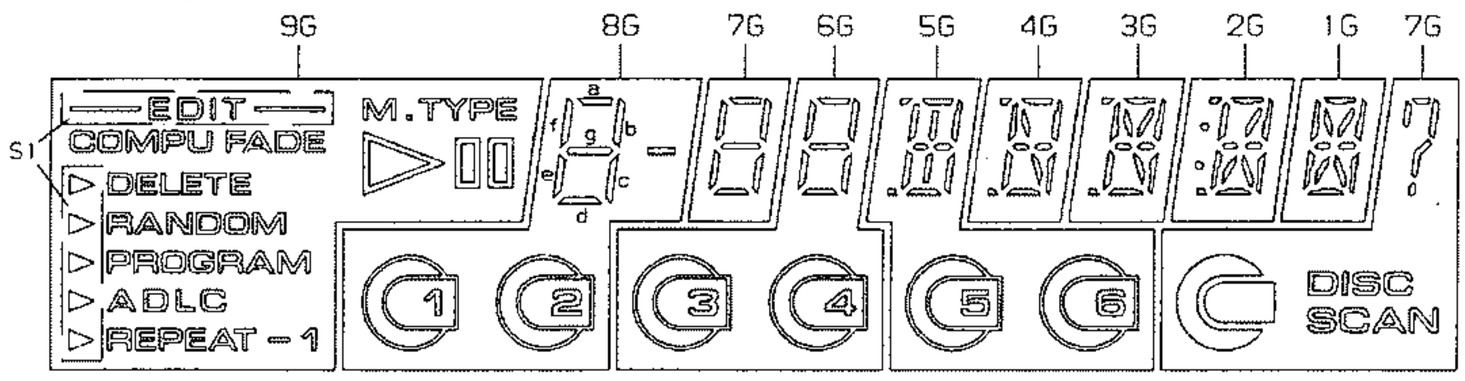


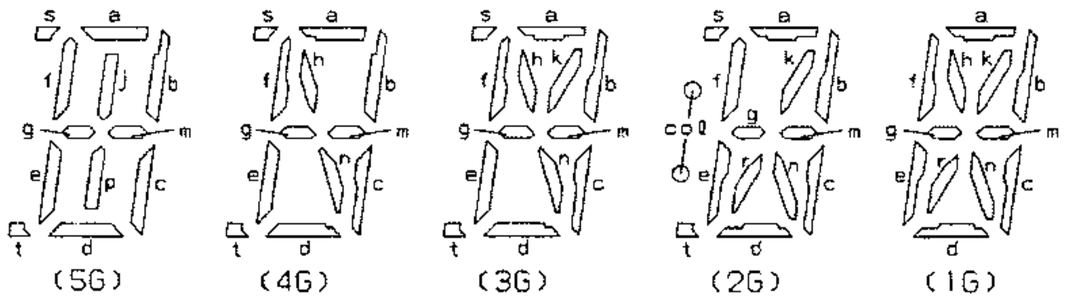
● Pin Connection

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
CONNECTION	F1	F1	NP	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	NX	9G	8G	7G	6G	5G	4G	3G	2G	1G	NX	NX	NX	NX	NX	NX	NP	NX	F2

NOTE 1) F1,F2 --- Filament
2) NP ------ No pin
3) NX ------ No extend pin
4) 1G~9G --- Grid

● Grid Assignment



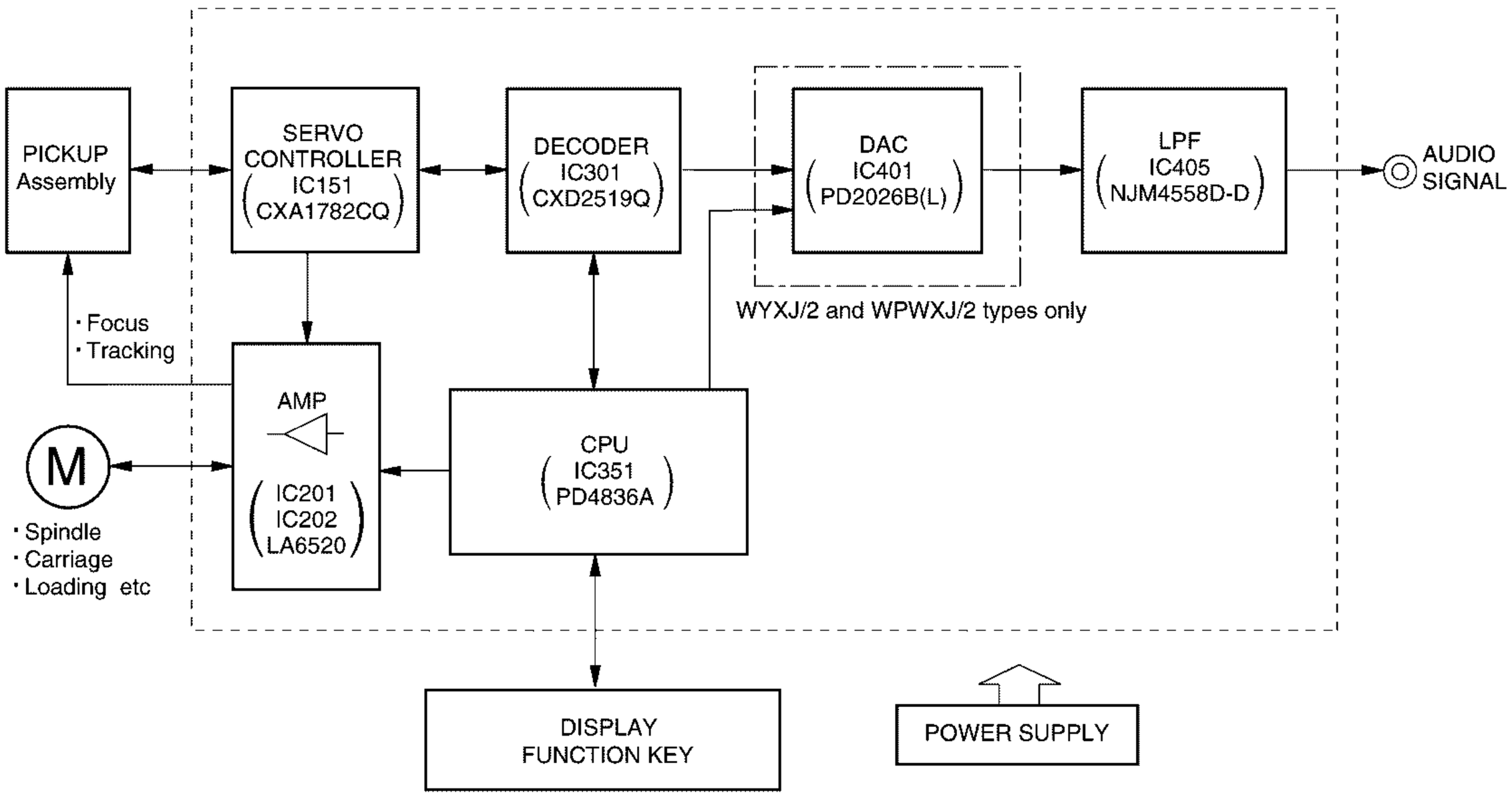


● Anode Connection

		9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	RANDOM	e	e	e	e	e	e	e	e	
P2	FADE	f	f	f	f	f	f	f	f	
P3	COMPU	g	g	g	g,m	g	g,m	g,m	g	
P4		–	?	–	s,t	m	s,t	s,t	m	
P5	M.TYPE	a	a	a	a	a	a	a	a	
P6	S1	b	b	b	b	b	b	b	b	

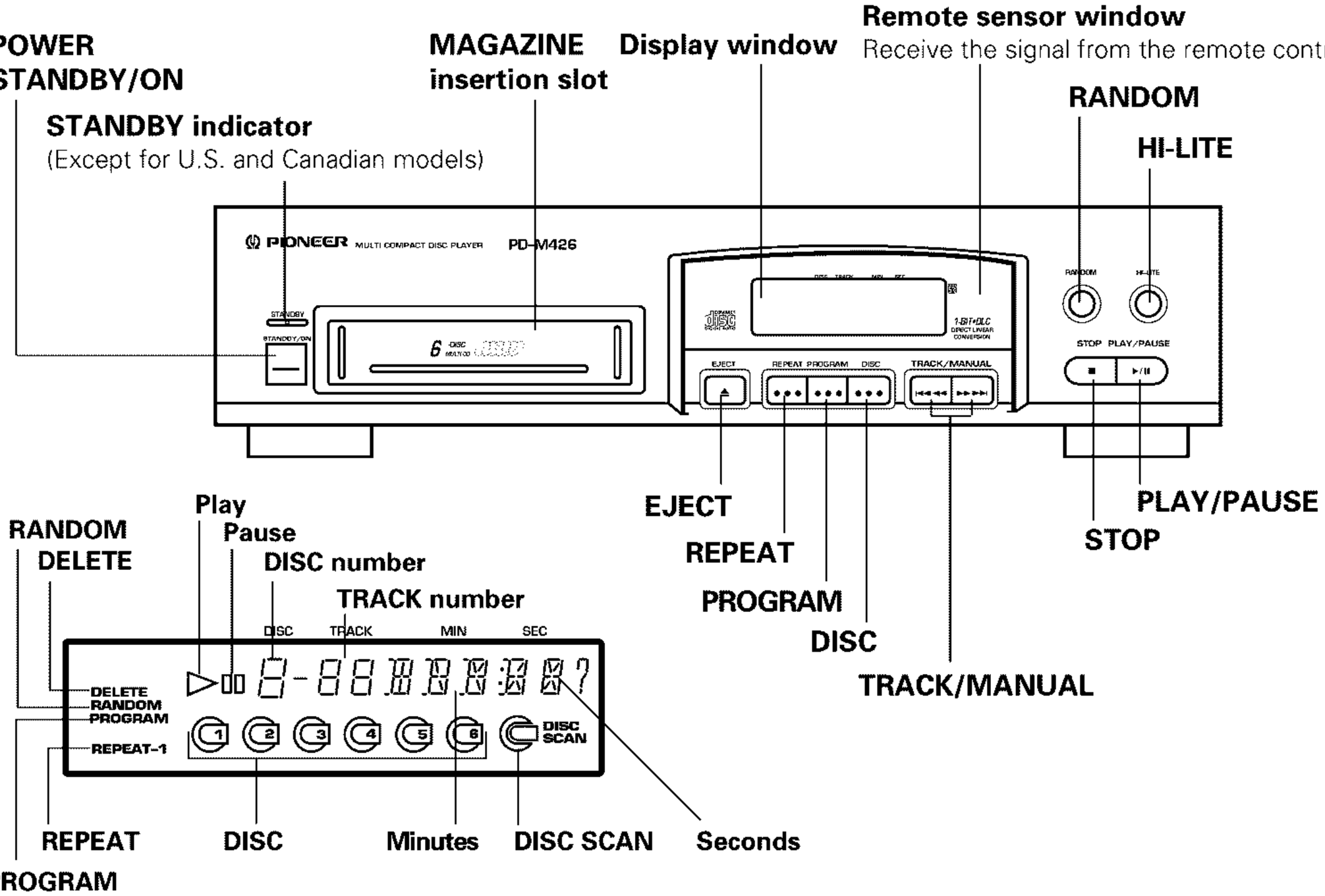
		9G	8G	7G	6G	5G	4G	3G	2G	1G
P7	DELETE	c	c	c	c	c	c	c	c	
P8	PROGRAM	d	d	d	d	d	d	d	d	
P9	▷	–	DISC	–	j,p	h	h	col	h	
P10	ADLC	–	SCAN	–	–	s	k	k	k	
P11	–1	①	C	③	⑤	n	n	n	n	
P12	REPEAT	②	▭	④	⑥	t	–	r	r	

7.2 BLOCK DIAGRAM

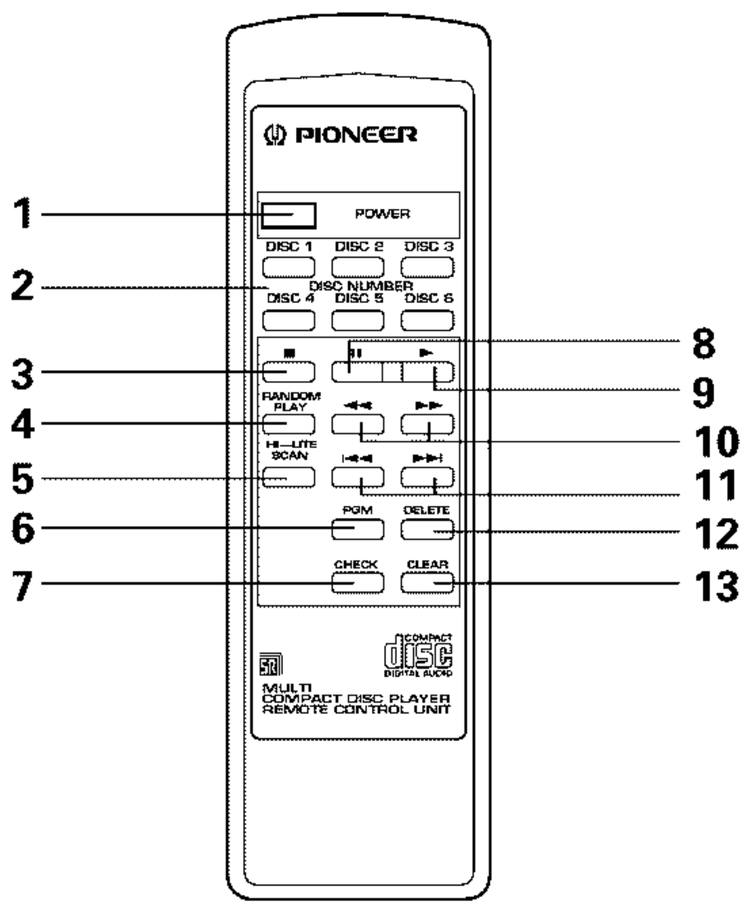


8. PANEL FACILITIES AND SPECIFICATIONS

■ PANEL FACILITIES



REMOTE CONTROL UNIT



Remote control buttons with the same names or marks as buttons on the front panel of the player control the same operations as the corresponding front panel buttons.

1 **POWER button**
2 **DISC NUMBER buttons (DISC 1-DISC 6)**
3 **STOP button (■)**
4 **RANDOM PLAY button**
5 **HI-LITE SCAN button**
6 **PGM (program) button**
7 **CHECK button**
8 **PAUSE button**
9 **PLAY button (►)**
10 **MANUAL search buttons (◄◄ , ►►)**
11 **TRACK search buttons (I◄◄ , ►►I)**
12 **DELETE button**
13 **CLEAR button**

■ SPECIFICATIONS

General

Type ..... Compact disc digital audio system
Power requirements
European model ..... AC 220-240 V, 50/60Hz
U.S. and Canadian models ..... AC 120 V, 60 Hz
Australian and New Zealand models
..... AC 220-240 V, 50/60Hz
Power consumption
European model ..... 12 W
U.S. and Canadian models ..... 10 W
Australian and New Zealand models ..... 12 W
Operating temperature ..... +5°C-+35°C
(+41°F– +95°F)
Weight (without package) ..... 3.7 kg (8 lb, 3 oz.)
External dimensions ..... 420(W) x 294 (D) x 105 (H) mm
16-9/16 (W) x 11-9/16 (D) x 4-1/8 (H) in

Audio section

Frequency response ..... 2 Hz – 20 kHz
Output voltage ..... 2.0 V
Wow and flutter ..... Limit of measurement
(0.001% W.PEAK) or less (EIAJ)
Channels ..... 2-channel (stereo)

Output terminal

Audio line output
Control input/output jacks (Except for European, Australian and New Zealand models.)

Accessories

- Remote control unit 1
- Size AAA/R03 dry cell batteries 2
- Six-compact-disc magazine 1
- Control cable (Except for European, Australian and New Zealand models.) 1
- Output cable 1
- Operating instructions 1

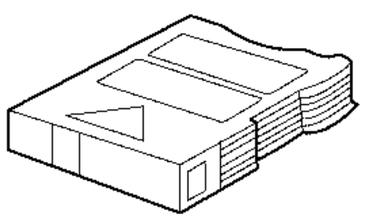
NOTE:

Specifications and design subject to possible modification without notice, due to improvements.

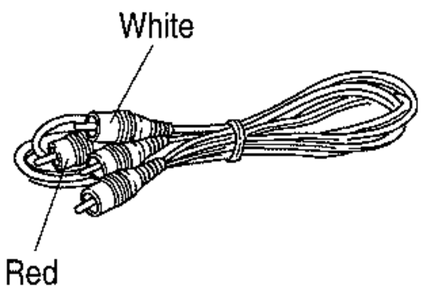
The Magazine Type Multi CD Players with mark and the Magazines with the same mark are compatible for 5 inch (12 cm) discs.

Accessories

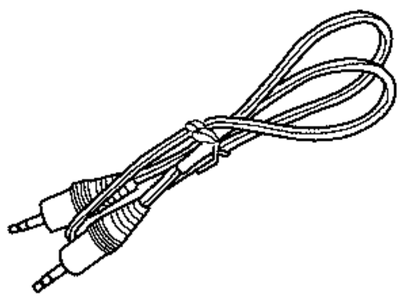
- Operating instructions



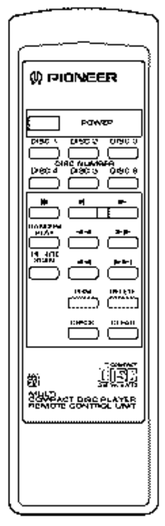
6-Compact disc magazine
(PXA1575)



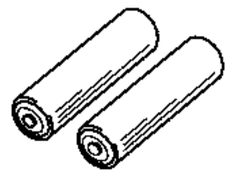
Output cable
(PDE1248)
(L= 1 m)



Control cable
(PDE1247)
(L= 1 m)



Remote control unit
(PWW1107)



Dry cell batteries
(AAA/R03)
(VEM–022)